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सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

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Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 3rd January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/I/CPA/102009/401296/D: In exercise of the powers conferred by the proviso un sub-section (2) of section 10 of the Consumer Protection Act, 1986 as amended from time to time, Government of Gujarat hereby accepts the resignation dated 24/6/2010 tendered by (1) Mr. L.S. Nakr President of District Forum, Surat (Main) and (2) Mr. P.G. Mewada, President of District Foru Banaskantha with effect from 24/6/2010 (After office hours).

By order and in the name of the Governor of Gujarat

Y. B. PATEL
Under Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 2 REGISTERED No. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

NOTIFICATION

Sachivalaya, Gandhinagar. Dated : 6th January, 2011.

Legal Metrology Act, 2009.

No.GTH/2011/2/KMV/102010/422744/D/Dt.06/01/2011 :- The following draft of a notification which is proposed to be issued after consultation with the Central Government, under sub-section (1) of section 53 of the Legal Metrology Act, 2009 (1 of 2010), is published as required by sub-section (4) of section 53 of the said Act, for the information of all persons likely to be affected thereby and notice is hereby given that, the said draft of rules will be taken into consideration by the Government of Gujarat on or after the expiry of thirty days from the date of its publication in the Official Gazette.

2. Any objection or suggestion which may be received by the Secretary to the Government of Gujarat, Food, Civil Supplies and Consumer Affairs Department, Sachivalaya, Gandhinagar from any person with respect to the said draft on or before the expiry of the aforesaid period will be considered by the Government.

DRAFT NOTIFICATION

No. GTH/2011/2/KMV/102010/422744/D/Dt.06/01/2011 :- In exercise of the powers conferred by sub-section (1) of section 53 of the Legal Metrology Act, 2009 (1 of 2010) and after consultation with the Government of India, the Government of Gujarat hereby makes the following rules, namely :-

1. **Short title, extent and commencement**- (1) These rules may be called the Gujarat Legal Metrology (Enforcement) Rules, 2011.

(2) They extend to the whole of the State of Gujarat.

(3) They shall come into force from the date of their publication in the Official Gazette.

2. **Definitions** – In these rules, unless the context otherwise requires,

(a)"Act" means the Legal Metrology Act, 2009;

(b)"Reference Standards Laboratory" means a laboratory set up by the Central Government under the Act, where Reference Standards, Secondary Standards and Working Standards are maintained;

(c) "Schedule" means a Schedule appended to these rules;

(d)words and expressions used in these rules and not defined but defined in the Act shall have the meanings respectively assigned to them in the Act.

3. **Reference Standards** – The Reference Standards shall be kept at such place, in such manner and in such custody as prescribed under the Legal Metrology (National Standards) Rules, 2011.

4. **Secondary Standards** – (1) Every Secondary Standards shall be verified at any of the Reference Standards Laboratories, in such manner and at such periodical intervals as may be prescribed under the rules to be made in this behalf and shall, if found on such verification to conform to the Standards established by or under the Act, be stamped by Reference Standard Laboratory or a certificate of verification will be issued by that laboratory.

(2) The Secondary Standards shall be kept at such place, and in such custody as the controller may direct.

5. **Working Standards** – (1) Every Working Standard shall be verified either at any of the Reference Standards laboratories or at any of the Secondary Standards Laboratories maintained by the State Government, in such manner and at such periodical intervals as may be prescribed under the rules to be made in this behalf and shall, if found on such verification to conform to the Standards established by or under the Act, be stamped or certificate of verification will be issued by that laboratory as the case may be.

(2) The Working Standards shall be kept in the custody of legal metrology officer.

6. **Secondary Standard balances** – (1) A set of Secondary Standard balances shall be maintained at every place where Secondary Standard Weights are kept.

(2) The number, types and specifications of such balances shall be such as may be prescribed under the Legal Metrology (General) Rules, 2011.

(3) Every Secondary Standard balance shall be verified at least once within a period of twelve months and shall be adjusted, if necessary, to make it correct within the limits of sensitivity and other metrological qualities prescribed under the Act, by the Reference Standards Laboratory or by the Controller or such other officer as may be authorized by the Controller in this behalf.

7. **Working Standard Balances:** (1) A set of Working Standard , balances shall be maintained at every place where Working Standard Weights are kept.

(2) The number, types and specifications of such balances shall be such as may be prescribed under the Legal Metrology (General) Rules, 2010.

(3) Every Working Standard balance shall be verified at least once within a period of twelve months and shall be adjusted, if necessary, to make it correct within the limits of sensitivity and other metrological qualities prescribed under the Legal Metrology (General) Rules, 2010, by the Reference Standard Laboratory or at any of the place where Secondary Standards are maintained by the State Government.

8. **Physical characteristics, configuration, constructional details of Weights and Measures** – Every Weight or measure used or intended to be used in any transaction or for protection shall conform as regards physical characteristic, configuration, constructional details, materials, performance, tolerances and such other details, to the specifications prescribed under the Act or the Legal Metrology (General) Rules, 2011.

9. **Use of Bullion Weights, Carat Weights, etc.** – (1) No Weight other than a Bullion Weight shall be used in any transaction in bullion including precious metals, pearls, ornaments or other articles made of gold or silver.

(2) No weight other than a carat weight shall be used in any transaction in precious stones.

(3) Only beam scale of class A or class B category or a non automatic weighing instrument of high accuracy class (class II) or special accuracy class (class I) shall be used in any transaction referred to in sub-rules (1) and (2).

10. **Use of weights only or measures only or number only in certain cases.** – Except in the cases of commodities specified in **Schedule I**, the declaration of quantity in every transaction, dealing or contract, or for protection shall be terms of the unit of -

(a) weight, if the commodity is solid, semi-solid, viscous or a mixture of solid and liquid ;
(b) length, if the commodity is sold by linear measure;
(c) area, if the commodity is sold by area measure;
(d) volume, if the commodity is liquid or is sold by cubic measure; or
(e) number, if the commodity is sold by number.

11. **Licencing of manufacturer, repairer and dealer of Weights and Measures** –

(1) Every manufacturer of, or repairer of, or dealer in, weight or measure shall make an application for the issue of a licence to the Controller legal metrology or such other officer as may be authorized by him in this behalf, in the appropriate form as prescribed in Schedule II A:

Provided that no licence to repair shall be required by a manufacturer for repair weight or measure manufactured by him and used in a state other than the State of manufacture of the same, but the manufacturer has to inform in advance the concerned legal metrology officer about the repairing.

(2) Every manufacturer of, or repairer of, or dealer in weight or measure shall make an application for the renewal of a licence within thirty days before the expiry of validity of the licence to the Controller legal metrology or such other officer as may be authorized by him in this behalf, in the appropriate form as prescribed in Schedule II B.

(3) Every licence issued to a manufacturer, repairer or dealer shall be in the appropriate form as prescribed in Schedule III.

(4) Every licence issued to a manufacturer, repairer, or dealer shall be valid for a minimum period of one calendar year and may be renewed for a period of five years, by the Controller or such other officer as may be authorized by him in this behalf on payment of per year fee as specified in Schedule IV.

(5) The fee payable for the alteration of a licence or for the issue of a duplicate licence shall be one half of the licence fee as specified in Schedule IV and an application shall be made in the form as prescribed in Schedule XII.

Provided that an additional fee at full the rates specified in Schedule IV shall be payable by the applicant if he is permitted by the Controller to make an application for the renewal of a licence within a period of three months from the date of expiry of the licence.

(6) The Controller or such other officer as may be authorized by him in this behalf shall maintain a register of licenced manufacturers, dealers and repairers in the form as prescribed in Schedule V.

(7) Every manufacturer, repairer or dealer licenced under the Act and these rules shall maintain such workshop, equipments, tools, registers, etc. as the case may be, as per the terms and conditions of the licence.

(8) Every repairer licenced under the Act and these rules shall furnish a security deposit for each licence to the State Government as specified in Schedule VI.

(9) Every licence issued or renewed under this Act shall be displayed in a conspicuous place in the premises where the licencee carries on business.

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(10) A licence issued or renewed under this Act shall not be saleable nor transferable.

(11) The basic minimum requirements for licensee repairers shall be as prescribed in Schedule VI-A, Part A. The existing licensed repairer shall comply with the prescribed provisions within a period of 12 months from the date of the commencement of these Rules.

(12) All licensee manufacturers shall be having tools and equipments in their production workshop as per TABLE F prescribed under Schedule VI-A, Part A. The existing licensed manufacturer shall comply with the prescribed provisions within a period of 12 months from the date of the commencement of these rules.

12. **Suspension and cancellation of licence granted:**

(1) The Controller or such other officer authorized by him in this behalf may, if he has any reasonable cause to believe that the holder of any licence issued, renewed or continued under this Act has made any statement in, or in relation to, any application for the issue, renewal or continuance of the licence, which is incorrect or false in any material particular or has contravened any provision of the Act or any rule or order made thereunder, suspend such licence, pending the completion of any inquiry against the holder of such licence:

Provided that no such licence shall be suspended unless the holder thereof has been given a reasonable opportunity of showing cause against the proposed action:

Provided further that where the inquiry referred to in this sub-rule is not completed within a period of three months from the date of suspension of a licence, such suspension shall, on the expiry of the period aforesaid, stand vacated.

(2) The Controller or such other officer authorized by him in this behalf may, if he is satisfied, after making such inquiry as he may think fit, that the holder of a licence has made a false or incorrect statement of the nature referred to in sub-rule (1), or has contravened any law or order referred to in that sub-rule cancel such licence:

Provided that no such licence shall be cancelled unless the holder thereof has been given a reasonable opportunity of showing cause against the proposed action.

(3) Every person whose licence has been suspended shall, immediately after such suspension, stop functioning as such licencee and shall not resume business as such licencee until the order of such suspension has been, or stands, vacated.

(4) Every licencee whose licence has been suspended or cancelled shall, after such suspension or cancellation, as the case may be, surrender such licence to the authority by which such licence was issued.

(5) Every licencee whose licence has been cancelled shall, within a period of thirty days from the date of such cancellation, or within such further period, not exceeding three months from such date, as the Controller or such other officer authorized by him in this behalf may, on sufficient cause being shown, allow, dispose of the weights or measures which were in his possession, custody or control on the date of such cancellation and in the event of his failure to do so, the Controller or any other officer authorized by him, in writing, in this behalf, may seize and dispose of the same and distribute the proceeds thereof in such manner as may be prescribed.

13. **Records to be maintained by manufacturers, etc** - Every manufacturer of or repairer of, or dealer in weight or measure licenced under the Act and these rules shall maintain records and registers in the appropriate form as prescribed in Schedule VII. Every licence holder shall furnish appropriate returns in the form as prescribed in Schedule VII duly signed by him to the concerned officer within 15 days from the end of the quarter to which the return relates, if required he shall submit the same in Online form also.

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14. **Periodical interval for the verification of weights or measures –**

Periodical interval for the verification of weights or measures as specified in The Legal Metrology (General) Rules, 2011.

15. **Verification and inspection of weights or measures –**

(1) Every person using any weight or measure in any transaction or for protection shall present such weight or measure for verification / re-verification, at the office of the Legal Metrology Officer or at such other place as the Legal Metrology Officer may specify in this behalf on or before the date on which the verification falls due and shall make an application as per the form prescribed in Schedule XIII for getting that weight or measure verified / re-verified:

Provided that where any weight or measure is such that it cannot, or should not be moved from its location, the person using such weight or measure shall report to the Legal Metrology Officer at least thirty days in advance of the date on which the verification falls due.

(2) Where any weight or measure is such that it cannot, or should not, be moved from it's location, Legal Metrology Officer shall take necessary steps for the verification of such weight or measure at the place of its location.

(3) For the verification of weight or measure referred to in sub-rule (2) the user shall provide such facilities as may be specified by the Controller.

(4) Every weight or measure presented for verification shall be complete in itself.

(5) Every weight or measure shall be verified in a clean condition, and if necessary, the Legal Metrology Officer shall require the owner or user to make necessary arrangement for the purpose.

(6) A Legal Metrology Officer may visit, as frequently as possible during the period specified in rule 14, every premise within the local limits of his jurisdiction to inspect and test any weight or measure which is being or is intended or likely to be used in any transaction or for protection.

(7) The legal metrology officer shall obliterate the stamp on any weight or measure, if it is found during inspection that:-

(a) Any weight or measure which being due for re-verification has not been submitted for such re-verification.

(b) Any weight or measure which does not conform to the Standards established by or under the Act:

Provided that where the legal metrology officer is of opinion that the defect or error in such weight or measure is not such as to require immediate obliteration of the stamp, he shall inform

the user, of the defect or error found in the weight or measure and call upon user to remove the defect or error within such time, not exceeding eight days and shall-

(i) if user fails to remove the defect or error within that period, obliterate the stamp, or

(ii) if the defect or error is so removed as to make the weight or measure conform to the standards established by or under the Act, verify and stamp such weight or measure.

Explanation: The obliteration of the stamp on any weight or measure shall not take, away or abridge the power of the legal metrology officer to seize such weight or measure in accordance with the provisions of the Act.

16. **Stamping of weights or measures** – (1) The Legal Metrology Officer shall stamp every weight or measure, if after testing and verification, he is satisfied that such weight or

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measure conforms to the standards established by or under the Act, with a stamp of uniform design, issued by the Controller, which shall indicate the number allotted for administrative purpose to the Legal Metrology Officer by whom it is stamped:

Provided that if by reason of the size or nature of any weight or measure it is not desirable or practicable to put a stamp thereon, the Legal Metrology Officer shall take such action as may be directed by the Controller by a general or a special order in writing.

(2) The Legal Metrology Officer shall also mark the year and its quarter of stamping on every verified weight or measure except when the size or nature of such weight or measure makes it impracticable.

Explanation – A year shall be deemed to consist of four quarters of which first quarter shall be of the months of January, February and March which shall be marked as A; second quarter shall be of the months of April, May and June which shall be marked as B, third quarter shall be of the months of July, August and September which shall be marked as C and fourth quarter shall be of the months of October, November and December which shall be marked as D.

(3) On completion of verification and stamping the Legal Metrology Officer shall issue a non transferable certificate of verification in the form as prescribed in Schedule VIII.

(4) Where a certificate of verification is lost or destroyed, the holder of the certificate of verification shall forthwith apply to the Legal Metrology Officer who had issued the certificate, for the issue of a duplicate certificate of verification. Every such application for the issue of a duplicate certificate shall be accompanied by a fee of rupees twenty five.

(5) On receipt of an application under sub-rule (4), the Legal Metrology Officer shall issue to the applicant a duplicate copy of the certificate of verification marked as 'DUPLICATE'.

17. **Fee for verification** - (1) Fees payable for verification and stamping of weight or measure at the office or camp office of the Legal Metrology Officer shall be as specified in Schedule IX.

(2) If, at the request of the user of weight or measure, verification is done at any premises other than the office or camp office of the Legal Metrology Officer, an additional fee shall be charged at half the rate as specified in the Schedule IX and the user of the weight or measure shall pay the expenses incurred by the Legal Metrology Officer for visiting the premises including the cost of transporting and handling the Working Standard and other equipment subject to a minimum of rupees one hundred.

Provided that no additional fee shall be charged for verification and stamping of weights and measures *in situ* of,-

(i) vehicle tanks for petroleum products and other liquids, Meter for Liquids Other than Water (Fuel Dispenser, Liquid Petroleum Gas, Milk Dispensers), Compressed Natural Gas Dispensers, Non-automatic Weighing Instruments like weighbridges, platform machines, crane scale, Automatic Gravimetric Filling Instruments, Automatic Rail-weighbridge, Discontinuous Totalizing Automatic Weighing Instruments, and such other weight or measure which cannot, and should not be moved from its location;

(ii) Weight or measure in the premises of manufacturer or dealer of such weight or measure.

(3) If a weight or measure is presented to the Legal Metrology Officer for re-verification after expiry of the validity of the stamp, an additional fee at half the rates specified in Schedule IX shall be payable for every quarter of the year or part thereof.

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(4) Full fee shall be payable for re-stamping any weight or measure held in stock with manufacturer or dealer within the period specified, in rule 14 from the date on which it was last stamped, provided that the original stamp was not obliterated.

(5) A weight or measure which on verification/inspection is found to be incorrect shall be returned to the person concerned for adjustment informing him, in a proforma specified by the Controller, of the defects found in the weight or measure, and calling upon him to remove the defects within a period not exceeding seven days. When the necessary adjustment has been carried out, such weight or measure shall be verified on payment of the fees specified in Schedule IX and if found correct shall be stamped.

18. **Collection of fees and deposit into the Treasury** - (1) Before commencing the work of verification or re-verification, the Legal Metrology Officer shall inform the person concerned of the fees payable by him and shall receive the same in the manner as authorized by the Controller and issue a receipt in the standard prescribed form approved by the Controller, one copy of such receipt being kept on record:

Provided that fees payable by a department of the Central or State Government under these rules may be realized in such manner as may be directed by the Controller.

(2) The Legal Metrology Officer shall maintain a register, in the standard prescribed form approved by the Controller, which shall be written up from day-to-day and shall show the amount of fees and other charges collected during the day.

(3) All payment received by the Legal Metrology Officer during the week shall be paid into the Government Treasury under the appropriate "Head of Account" on such dates or days as may be specified by the Controller from time to time, and a receipt thereof be obtained and an intimation to that effect be sent to the Controller or other officer authorized by him in this behalf.

19. **Disposal of seized weights, measures, etc.** - (1) Any un-verified weight or measure shall be returned to the person from whom such weight or measure was seized if that person gets the same verified and stamped, within fifteen days of the return, on payment of the prescribed fee including the additional fee payable for undertaking re-verification after the expiry of the validity of the stamp.

(2) Any weight or measure or document or thing or goods seized and detained under section 15 of the Act, which is to be the subject of proceedings in a court shall be produced by the legal metrology officer before the court shall after conclusion of the proceedings, be taken possession of by the legal metrology officer and dealt with in accordance with the orders of the court:

Provided that in the absence of the orders of the court, weight or measure or document or thing or goods shall be deal with as the controller may by special order direct and the material thereof shall be sold and the proceeds credited to the Government.

(3) Where the goods seized under sub-section (1) of section 15 of the Act are not subject to speedy or natural decay, the legal metrology officer may retain the package for the purpose of prosecution under this Act after giving the trader or his agent or the other person (who has committed the offence) a notice of such seizure.

(4) The goods referred under sub-rule (5) which are not to be the subject of proceedings in a court, shall after the expiry of sixty days of its seizure, be so dealt with as the Controller may by special order direct.

20. **Validity of weights or Measures duly stamped**- (1) A weight or measure which is, or is deemed to be, duly verified and stamped under these rules shall be deemed to conform to the standards established by or under the Act at every place within the State in which it is stamped unless it is found on inspection or verification that such weight or measure has ceased to conform to the standards established by or under the Act.

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(2) No weight or measure which is, or is deemed to be, duly verified and stamped under this Act shall require to be re-stamped merely by reason of the fact that it is being used at any place within the State other than the place at which it was originally verified and stamped:

Provided that where a verified weight or measure, installed at one place is dismantled and re-installed at a different place, such weight or measure shall not be put into use unless it has been duly re-verified and stamped, notwithstanding that periodical re-verification of such weight or measure has not become due.

(3) Where a verified weight or measure has been repaired, whether by a licenced repaired or by the person owning and possessing the same, such weight or measure shall not be put into use unless it has been duly re-verified and stamped, notwithstanding that periodical re-verification of such weight or measure has not become due.

21. **Provision of supply of Working/Secondary Standards, equipment, etc. to the Legal Metrology Officer** – (1) Every Legal Metrology Officer shall be provided with Working /Secondary Standards weights, Working/Secondary Standard balances, and such other equipment includes weighing and measuring devices as may be approved by the Controller from time to time.

(2) Every Legal Metrology Officer shall be provided with such dies, punches, paper seal / sticker and such other equipment as may be necessary for affixing the verification stamp, the design and number of which are to be approved by the Controller.

(3) Every Legal Metrology Officer shall be provided with punches of suitable sizes of eight-pointed star as prescribed in Schedule XIV for obliterating stamps.

22. **Provisions relating to use of weight, measure, etc** – (1) Every person using a beam scale in any transactions in his premises shall suspend the same to a stand or to a chain by a hook:

Provided that this sub-rule shall not apply to itinerant vendors.

(2) Every weight or measure shall be used in a clean condition and in proper lighting arrangement

(3) Any weight or measure, which has been verified and stamped *in situ*, shall not be dismantled and removed from its original site without prior intimation to the Controller or other person authorized by him in this behalf.

(4) To ensure a proper check of the accuracy of a weighing instrument the user shall keep at the site of each weighing instrument duly verified and stamped weights equal to one-tenth of the capacity of the instrument or one tonne whichever is less and consumer can also check the accuracy of the weighing instrument:

Provided that the Controller may specify the total number of verified and stamped weights to be maintained in trade premises where the number of weighing instruments are more than one.

(5) To ensure proper delivery of the petrol / diesel pumps, the retail dealer of the pump shall keep a verified 5 litre/10litre capacity measure in his premises and check the out put from the pump every day before put into use of dispensing pump to ensure its correct delivery. In case of any short delivery the dealer shall stop the delivery through the pump immediately and inform the legal metrology officer concerned to recalibrate the pump.

23. **Certificate of verification to be exhibited** – The person to whom a certificate of verification is issued shall exhibit the same in a conspicuous place in the premises where the weights, measures or weighing or measuring instruments to which the certificate relates are used:

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Provided that in the case of itinerant vendor, the certificate shall be kept with the person:

Provided further that in the case of vehicle tank, the certificate of verification shall be kept with the vehicle.

24. **Penalty for contravention of rules** – Whoever contravenes any provision of these rules, for the contravention of which no punishment has been separately provided in the Act, shall be punished with fine, which may extend to five thousand rupees. Whenever rules are in conflict with the provisions of the Act, the Act will prevail the rules.

25. **Form of appeal** - (1) Every appeal under the Act and these rules shall be preferred in the form specified in Schedule X, and shall be accompanied by a copy of the order appealed against.

(2) An application for appeal to State Government shall be accompanied by fee of Rs. 500 and for appeal to Controller shall be accompanied by fee of Rs. 200 paid either by cash or by affixing court fee stamp for the said value as the case may be.

26. Fee for compounding of offences- The fee for compounding of offences committed under the Act shall be as prescribed in Schedule XI.

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SCHEDULE I

(See rule 10)

Exceptions referred to in Rule 10

1- The following commodities may be sold by weight, measure or number as show against the commodity.

TABLE

Sr. No.	Commodity	Whether declaration to be expressed in terms of weight, measure or number or two or more of them.
(1)	(2)	(3)
1-	Aerosol products	weight
2-	Acids in liquid form	weight or Volume
3-	Compressed or liquefied gas (but not liquefied petroleum gas	weight and equivalent volume at stated temperature and pressure
4-	Butter (incl. peanut butter), cheese, curd, ghee	weight
5-	Electric cables	length or weight
6-	Electric wire	length or weight
7-	Fencing wire	length or weight
8-	Hair oil, un-perfumed	weight or volume
9-	Fruits and vegetables	number or weight
10-	Furnace oil	weight or volume
11-	Linseed oil and other vegetable oils	weight or volume
12-	Heavy residual fuel oil	weight
13-	Industrial diesel fuel	volume
14-	Honey, malt extract, golden syrup treacle	weight
15-	Ice cream and other similar frozen products	weight
16-	Liquid chemicals	weight or volume
17-	Liquid petroleum gas	weight
18-	Nails, wood screws	number or weight
19-	Paint (other than paste paints or solid paint), varnish and varnish stairs, enamels	volume
20-	Papad	number and weight
21-	Paste paint, solid paint	weight
22-	Ressogulla, Gulabjamun and other sweet preparations	weight
23-	Ready made garments	number and size
24-	Sauce, all kinds	weight
25-	Tyres and tubes	number
26-	Yarn	Weight or length of yarn

SCHEDULE II A

(See rule 11(1))

FORM LM-1

[Application form for licence as manufacturer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator	Person who gave test of WM manufacturing

Mark (✓) wherever applicable

1. Name of the Manufacturing concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application

Surname..... Name..... Father/ Husband's Name

2(c) Complete residential address of the applicant :

House No..... Street / Society :

City Ta Dist.....

Tel No.....Mobile No..... Email.....

3(a) Complete address of the workshop :

House / Factory No..... Locality.....

City Ta Dist.....

3(b) Whether workshop premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐ dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not	
(a)	Shop Act Reg. No.	☐	☐	Yes ☐	No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐	No ☐
(c)	State VAT No. :	☐	☐	Yes ☐	No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐	No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐	No ☐

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Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date ,(dd mm yyyy)	Sex (M/F)	Designation Δ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable. Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society
1. = illiterate. 2. = Studied upto Std. 7 3. = SSC fail 4. = Studied upto Std. 11 5. = HSC Pass 6. = Certificate Diploma after Std. 10/12 7. = Graduate / Post Graduate (Arts/Science/Commerce) 8. = B.E. / B.Tech / MBA / LLB / LLM	1. = Agriculture 2. = Business / Trading / Profession 3. = Industry 4. = Skilled worker 5. = Service in Govt. / Private Organised Sector 6. = Service in unorganised sector (e.g. Small private firm) 7. = Others	

All the information furnished above is true to the best of my / our knowledge.

.....

Name and Signature
of applicant

5(a) Type of Weights and Measures to be manufactured
Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6(a) No.of persons employed / proposed to be employed
(1) Skilled... (2) Semiskilled ... (3) Unskilled... (4) Specially trained...

6(b) Whether details of above attached in Annexure-2 or not ? Yes ☐ No ☐

7. Tentative date for presenting the model manufacturer ☐ / / ☐
dd / mm/ yyyy

8. Whether model approval certificate attached or not ? Yes ☐ No ☐

9. Whether details of machinery, tools, accessories attached in Annexure-3 or not ? Yes ☐ No ☐

10. Whether details of steel casting / hardness testing / foundry facility attached in Annexure-4 or not ? Yes ☐ No ☐

11. Whether details of weights and measures in the possession of the applicant on the date of application attached in Annexure-5 or not ? Yes ☐ No ☐

12. Did the applicant make any such application previously ? Yes ☐ No ☐

13. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act/Rules in the past ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :
Date :

.....
Signature and name

Note : The details of above Sr. No. 5 to 11 shall be attached in the enclosed annexure-1 to 5 alongwith the remarks of the Inspecting Officer.

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ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES TO BE MANUFACTURED)

Sr. No.	Code of Weights, Measures (1 = weights, 2 = measures, 3 = weighing instruments, 4 = measuring instruments)	Type, Capacity and class as applicable	Remarks of the Inspecting Officer

ANNEXURE-2 (DETAILS OF EMPLOYEES)

Sr. No.	Category code (1 = skilled, 2 = semiskilled, 3 = unskilled, 4 = specially trained)	Name	Date of joining	Birth Date	Educational Qualification	Designation	Monthly Salary Rs.	EPF No.	Remarks of Inspecting officer

ANNEXURE-3 (DETAILS OF MACHINERY, TOOLS, ACCESSORIES)

Sr. No.	Details of machinery/ tools/ accessories	Nos.	Remarks of the Inspecting Officer	Sr. No.	Details of machinery/ tools/ accessories	Nos.	Remarks of the Inspecting Officer
1	Portable drill machine			14	Screw driver set		
2	Bench type drill machine			15	Allen key Set		
3	Welding machine			16	Drill machine spanner set		
4	Portable disc grinder			17	Flat and round file		
5	Bench grinder			18	Bullion weights (2kg to 1 mg)		
6	Gas cutting set with PUG machine			19	CI weights (20 kg to 50 g)		
7	Magnet drill for weighbridge			20	Hammer set		
8	Digital multimeter			21	Cutter		
9	Soldering iron			22	Spanner set		
10	Desoldering gun			23	Square lid seal and seal wire		
11	Soldering wire			24	5 Ton O.H.crane for weighbridge		
12	Number punch and ABCD punch set			25	Testing weights (1/4th max. capacity for weighbridge)		
13	Nose plier			26	Other tools if any		

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ANNEXURE-4 (DETAILS OF STEEL CASTING / HARDNESS TESTING / FOUNDRY FACILITY)

Sr. No.	Details of machinery	Nos.	Remarks of the inspecting officer

ANNEXURE-5 (DETAILS OF WEIGHTS, MEASURES IN POSSESSION OF THE APPLICANT)

Sr. No.	Code of Weights, Measures (1 = weights, 2 = measures, 3 = weighing instruments, 4 = measuring instruments)	Type, Capacity and class as applicable	Nos.	Remarks of Inspecting officer

SCHEDULE II A

(See rule 11(1))

FORM LR-1

[Application form for licence as Repairer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator	Person who gave test of WM repairing

Mark (✓) wherever applicable

1. Name of the Repairing concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application

Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :

House No..... Street / Society :

City Ta Dist.....

Tel No.....Mobile No..... Email.....

3(a) Complete address of the workshop :

House / Factory No..... Locality.....

City Ta Dist.....

3(b) Whether workshop premises are : Owned ☐ R☐

3(c) Firm commencement date : ☐ dd / mm/ yyyy

3(d) Availability of electric energy : Connection No. ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not	
(a)	Shop Act Reg. No.	☐	☐	Yes ☐	No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐	No ☐
(c)	State VAT No. :	☐	☐	Yes ☐	No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐	No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐	No ☐

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Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date (dd mm yyyy)	Sex (M/F)	Designation Δ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8

9. = illiterate.
10. = Studied upto Std. 7
11. = SSC fail
12. = Studied upto Std. 11
13. = HSC Pass
14. = Certificate Diploma after Std. 10/12
15. = Graduate / Post Graduate (Arts/Science/Commerce)
16. = B.E. / B.Tech / MBA / LLB / LLM

Code for column No.7

8. = Agriculture
9. = Business / Trading / Profession
10. = Industry
11. = Skilled worker
12. = Service in Govt. / Private Organised Sector
13. = Service in unorganised sector (e.g. Small private firm)
14. = Others

$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable.

Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society

All the information furnished above is true to the best of my / our knowledge.

.....
Name and Signature
of applicant

INDEX

5(a) Type of Weights and Measures to be repaired

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6(a) No.of persons employed / proposed to be employed

(1) Skilled..... (2) Semiskilled..... (3) Unskilled..... (4) Specially trained.....

6(b) Whether details of above attached in Annexure-2 or not ? Yes ☐ No ☐

7. Whether details of machinery, tools, accessories attached in Annexure-3 or not ? Yes ☐ No ☐

8. Whether details of weights and measures in the possession of the applicant on the date of application attached in Annexure-4 or not ? Yes ☐ No ☐

9. Did the applicant make any such application previously ? Yes ☐ No ☐

10. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act / Rules in the past ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :

.....

Date : Signature and name

Note :

The details of above Sr. No. 5 to 8 shall be attached in the enclosed annexure-1 to 4 alongwith the remarks of the Inspecting Officer.

ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES TO BE REPAIRED)

Sr. No.	Code of Weights, Measures (1 = weights, 2 = measures, 3 = weighing instruments, 4 = measuring instruments)	Type, Capacity and class as applicable	Remarks of the Inspecting Officer

ANNEXURE-2 (DETAILS OF EMPLOYEES)

Sr. No.	Category code (1 = skilled, 2 = semiskilled, 3 = unskilled, 4 = specially trained)	Name	Date of joining	Birth Date	Educational Qualification	Designation	Monthly Salary Rs.	EPF No.	Remarks of Inspecting officer

ANNEXURE-3 (DETAILS OF MACHINERY, TOOLS, ACCESSORIES)

Sr. No.	Details of machinery/ tools/ accessories	Nos.	Remarks of the Inspecting Officer

Note :

(1) The equipments and machineries required for repairing mechanical weighing instruments shall be as per **TABLE-A** of **Schedule VI A, Part-A under rule 11.**

(2) The equipments and machineries required for repairing electronic weighing instruments shall be as per **TABLE-B** of **Schedule VI A, Part-A under rule 11.**

(3) All licensee repairers shall be required to keep **loan sets** as per **TABLE-C** of Schedule VI A, Part A under rule 11 for repairing of mechanical weighing instruments.

(4) All licensee repairers shall be required to keep **loan sets** as per **TABLE-D** of Schedule VI A, Part A under rule 11 for repairing of electronic weighing instruments.

(5) All licensee repairers shall be required to keep **test weights and measures** as per **TABLE-E** of Schedule VI A, Part A under rule 11.

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ANNEXURE-4 (DETAILS OF WEIGHTS, MEASURES IN POSSESSION OF THE APPLICANT)

Sr. No.	Code of Weights, Measures (1 = weights, 2 = measures, 3 = weighing instruments, 4 = measuring instruments)	Type, Capacity and class as applicable	Nos.	Remarks of Inspecting officer

SCHEDULE II A
(See rule 11(1))

FORM LD-1

[Application form for licence as Dealer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator

Mark (✓) wherever applicable

1. Name of the concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application
Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :
House No..... Street / Society :
City Ta Dist.....
Tel No.....Mobile No..... Email.....

3(a) Complete address of the Office :

Shop No..... Locality.....

City Ta Dist.....

3(b) Whether Office premises are : Owned ☐ R☐

3(c) Firm commencement date : ☐
dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not	
(a)	Shop Act Reg. No.	☐	☐	Yes ☐	No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐	No ☐
(c)	State VAT No. :	☐	☐	Yes ☐	No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐	No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐	No ☐

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Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date (dd mm yyyy)	Sex (M/F)	Designation Δ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable.
17. = illiterate. 18. = Studied upto Std. 7 19. = SSC fail 20. = Studied upto Std. 11 21. = HSC Pass 22. = Certificate Diploma after Std. 10/12 23. = Graduate / Post Graduate (Arts/Science/Commerce) 24. = B.E. / B.Tech / MBA / LLB / LLM	15. = Agriculture 16. = Business / Trading / Profession 17. = Industry 18. = Skilled worker 19. = Service in Govt. / Private Organised Sector 20. = Service in unorganised sector (e.g. Small private firm) 21. = Others	Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society

All the information furnished above is true to the best of my / our knowledge.

.....

Name and Signature
of applicant

5(a) Type of Weights and Measures to be sold
Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6(a) No.of persons employed / proposed to be employed

(1) Skilled..... (2) Semiskilled (3) Unskilled..... (4) Specially trained.....

6(b) Whether details of above attached in Annexure-2 or not ? Yes ☐ No ☐

7(a) Whether the applicant / firm intends to import weight / measure from places outside the State / Country Yes ☐ No ☐

7(b) If yes,

i)Name of manufacturer of other State / Country

ii)Licence No. of the manufacturer

iii)Importer registration of weight, measure if applicable.....

iv)Model approval certificate No..... (copies shall be attached)

8. Did the applicant make any such application previously ?Yes ☐ No ☐

9. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act / Rules in the past ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :

.....

Date : Signature and name

Note :

The details of above Sr. No. 5 and 6 shall be attached in the enclosed annexure-1 and 2 alongwith the remarks of the Inspecting Officer.

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ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES TO BE SOLD)

Sr. No.	Code of Weights, Measures (1 = weights, 2 = measures, 3 = weighing instruments, 4 = measuring instruments)	Type, Capacity and class as applicable	Remarks

ANNEXURE-2 (DETAILS OF EMPLOYEES)

Sr. No.	Category code (1 = skilled, 2 = semiskilled, 3 = unskilled, 4 = specially trained)	Name	Date of joining	Birth Date	Educational Qualification	Designation	Monthly Salary Rs.	EPF No.	Remarks of Inspecting officer

SCHEDULE II B
(See rule 11(1))
FORM LM-2
[Application form for renewal of licence as manufacturer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator	Person who gave test of WM manufacturing

Mark (✓) wherever applicable

1. Name of the Manufacturing concern

2(a) Nature of the firm :
Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application
Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :
House No..... Street / Society :
City Ta Dist.....
Tel No.....Mobile No..... Email.....

3(a) Complete address of the workshop :
House / Factory No..... Locality.....
City Ta Dist.....

3(b) Whether workshop premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐
dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not	
(a)	Shop Act Reg. No.	☐	☐	Yes ☐	No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐	No ☐
(c)	State VAT No. :	☐	☐	Yes ☐	No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐	No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐	No ☐

(Note : Details in Serial No.4(a) to 4(e) are to be provided only if there is a change in any previous registration)

INDEX

Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date ,(dd mm yyyy)	Sex (M/F)	Designation∆	Joining Date ∆	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8
- 25. = illiterate.
- 26. = Studied upto Std. 7
- 27. =SSC fail
- 28. = Studied upto Std. 11
- 29. = HSC Pass
- 30. = Certificate Diploma after Std. 10/12
- 31. = Graduate / Post Graduate (Arts/Science/Commerce)
- 32. = B.E. / B.Tech / MBA / LLB / LLM

Code for column No.7
- 22. = Agriculture
- 23. = Business / Trading / Profession
- 24. = Industry
- 25. = Skilled worker
- 26. = Service in Govt. / Private Organised Sector
- 27. = Service in unorganised sector (e.g. Small private firm)
- 28. = Others

$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable.

∆ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society

All the information furnished above is true to the best of my / our knowledge.

.....
Name and Signature
of applicant

INDEX

5(a) Type of weights and measures manufactured during the last 12 months

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6. Do you propose any change in the above

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

7. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act / Rules in the past five years ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :

Date : Signature and name

Note :

The details of above Sr. No. 5 shall be attached in the enclosed Annexure-1 alongwith the remarks of the Inspecting Officer.

ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES MANUFACTURED DURING THE LAST 12 MONTHS)

STOCK STATEMENT

Sr. No.	Opening Stock	Quantity manufactured during the month	Total (2+3)	Quantity sold during the month	Closing stock (4-5)
1	2	3	4	5	6

TRANSACTION STATEMENT

Sr. No.	Des-patch vou-cher no. & date	Type of Weight / Measure	Quan-tity	Sold inside or outside State (I / O)	Category of purchaser Dealer / Trader (D / T)	Details of Dealer			Details of trader				
						Licence No.	Name	Address	Name	Address	EPIC No.	Ration Card No.	
1	2	3	4	5	6	7	8	9	10	11	12	13	

Note :

1. In column 5 - Letter **"I"** stands for Inside State and Letter **"O"** stands for Outside State.

2. In column 6 - Letter **"D"** stands for Dealer and letter **"T"** stands for Trader.

3. Only the letters **I / O** and **D / T** are to be mentioned the prescribed columns.

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SCHEDULE II B

(See rule 11(1))

FORM LR-2

[Application form for renewal of licence as repairer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator	Person who gave test of WM repairing

Mark (✓) wherever applicable

1. Name of the repairing concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application

Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :

House No..... Street / Society :

City Ta Dist.....

Tel No.....Mobile No..... Email.....

3(a) Complete address of the workshop :

Shop / Factory No..... Locality.....

City Ta Dist.....

3(b) Whether workshop premises are : Owned ☐ R☐

3(c) Firm commencement date : ☐ dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not	
(a)	Shop Act Reg. No.	☐	☐	Yes ☐	No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐	No ☐
(c)	State VAT No. :	☐	☐	Yes ☐	No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐	No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐	No ☐

(Note : Details in Serial No.4(a) to 4(e) are to be provided only if there is a change in any previous registration)

INDEX

Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date (dd mm yyyy)	Sex (M/F)	Designation Δ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable.
33. = illiterate. 34. = Studied upto Std. 7 35. = SSC fail 36. = Studied upto Std. 11 37. = HSC Pass 38. = Certificate Diploma after Std. 10/12 39. = Graduate / Post Graduate (Arts/Science/Commerce) 40. = B.E. / B.Tech / MBA / LLB / LLM	29. = Agriculture 30. = Business / Trading / Profession 31. = Industry 32. = Skilled worker 33. = Service in Govt. / Private Organised Sector 34. = Service in unorganised sector (e.g. Small private firm) 35. = Others	Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society

All the information furnished above is true to the best of my / our knowledge.

.....

Name and Signature
of applicant

5(a) Type of weights and measures repaired during the last 12 months

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? ☐ Yes No ☐

6. Do you propose any change in the above

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

7. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act / Rules in the past five years ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :

.....

Date : Signature and name

Note :

The details of above Sr. No. 5 shall be attached in the enclosed Annexure-1 alongwith the remarks of the Inspecting Officer.

INDEX

ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES REPAIRED DURING THE LAST 12 MONTHS)

REPAIRER RETURN

Sr. No.	Date	Details of user				Last Verifi-cation Certi-ficate No. and Date	Details of weights / measures / instruments		Rece-ipt No. and date of issue to the user	Bill No.	Veri-fication certi-ficate No. and date	Remarks
		Name	Add- ress	Elec-tion card No.	Ration Card No.		Weights / measures / instru-ments (codes only)	Nos.				
1	2	3	4	5	6	7	8	9	10	11	12	13

INDEX

SCHEDULE II B

(See rule 11(1))

FORM LD-2

[Application form for renewal of licence as dealer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator

Mark (✓) wherever applicable

1. Name of the concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application

Surname.....Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :

House No..... Street / Society :

City Ta Dist.....

Tel No.....Mobile No..... Email.....

3(a) Complete address of the Office :

Shop No..... Locality.....

City Ta Dist.....

3(b) Whether shop premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐ dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

		dd / mm / yyyy	Whether Reg. certificate attached or not	
(a)	Shop Act Reg. No. ☐	☐	Yes ☐	No ☐
(b)	I.T. PAN No. ☐	☐	Yes ☐	No ☐
(c)	State VAT No. : ☐	☐	Yes ☐	No ☐
(d)	Central VAT No. : ☐	☐	Yes ☐	No ☐
(e)	Prof.Tax. No. ☐	☐	Yes ☐	No ☐

(Note : Details in Serial No.4(a) to 4(e) are to be provided only if there is a change in any previous registration)

INDEX

Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date (dd mm yyyy)	Sex (M/F)	Designation Δ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable.
41. = illiterate. 42. = Studied upto Std. 7 43. = SSC fail 44. = Studied upto Std. 11 45. = HSC Pass 46. = Certificate Diploma after Std. 10/12 47. = Graduate / Post Graduate (Arts/Science/Commerce) 48. = B.E. / B.Tech / MBA / LLB / LLM	36. = Agriculture 37. = Business / Trading / Profession 38. = Industry 39. = Skilled worker 40. = Service in Govt. / Private Organised Sector 41. = Service in unorganised sector (e.g. Small private firm) 42. = Others	Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society

All the information furnished above is true to the best of my / our knowledge.

.....

Name and Signature
of applicant

INDEX

5(a) Type of weights and measures sold during the last 12 months

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6. Do you propose any change in the above

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

7. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act/Rules in the past five years ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued there under.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :

.....

Date : Signature and name

Note :

The details of above Sr. No. 5 shall be attached in the enclosed Annexure-1 alongwith the remarks of the Inspecting Officer.

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ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES SOLD DURING THE LAST 12 MONTHS)

STOCK STATEMENT

Sr. No.	Opening Stock	Quantity sold during the month	Closing stock (2-3)
1	2	3	4

TRANSACTION STATEMENT

Sr. No.	Des-patch vou-cher no. & date	Type of Weight / Measure	Quan-tity	Sold inside or outside State (I / O)	Category of purchaser Dealer / Trader (D / T)	Details-of-Dealer			Details-of-trader				
						Licence No.	Name	Address	Name	Address	EPIC No.	Ration Card No.	
1	2	3	4	5	6	7	8	9	10	11	12	13	

Note :

1. In column 5 - Letter **"I"** stands for Inside State and Letter **"O"** stands for Outside State.

2. In column 6 - Letter **"D"** stands for Dealer and letter **"T"** stands for Trader.

3. Only the letters **I / O** and **D / T** are to be mentioned the prescribed columns.

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SCHEDULE III

(See rule 11 (3))

Licensing Forms

FORM LM-3

PHOTO

OFFICE OF THE CONTROLLER OF LEGAL METROLOGY,

GUJARAT STATE

Licence to manufacture of weights, measures, weighing or measuring instruments.

Licence No..... Year

1. The Controller of Legal metrology hereby grants to
(Name and address of party or parties) a licence to manufacture the following:-
(Include details of the weights, measures, weighting instruments or measuring instruments that are licenced to be manufactured by the party).

Weights	Measures	Weighing Instruments	Measuring instruments

2. The licence is valid for the party named above in respect of his workshop located at
3. Address of the office if different than workshop address :
.....
.....
4. This licence is valid from to
5. Details of employees

Sr. No.	Name of Employee	Joining Date	Birth date	Education Qualification	Designation	Monthly Salary	EPF No.	Remarks
1	2	3	4	5	6	7	8	9

6. The manufacturer shall comply with the conditions noted below. If he fails to comply with anyone of these, his licence is liable to be cancelled.
7. The trade mark monogram being used by the manufacturer is as under.

.....

(Signature)

Controller of legal Metrology

(Seal) Gujarat State

Date

Place

Note: In the case of firm, its name with the names of all names of all persons having interest in the business should be given in paragraph 1.

INDEX

CONDITIONS OF LICENCE

1. The person in whose favour this licence is issued shall. -

(a) Comply with all the relevant provisions of the Act and Rules for the time being in force;

(b) Not encourage or countenance any infringement of the provisions of the Act. or the Rules amended from time to time;

(c) Exhibit this licence in some conspicuous part of the premises to which it relates;

(d) Comply with any general or special directions that may be given by the Controller of legal metrology;

(e) Surrender the licence in the event of closure of business and/ or cancellation of Licence;

(f) Present the weights, measures, weighing or measuring instruments as the case may be manufactured and meant for use within the State, to the legal metrology officer for verification and stamping before sale;

(g) Submit the application for renewal of this licence as required under the rules within thirty days of expiry of the validity of the licence.

(h) Shall be having tools and equipments in their production workshop as prescribed.

2. Every condition prescribed after the issue of this licence shall if notified in the Official Gazette, be binding on the persons to whom the licence has been granted.

Renewal entries

Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology

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SCHEDULE III

(See rule 11 (3))

Licensing Forms

FORM LR-3

PHOTO

OFFICE OF THE CONTROLLER OF LEGAL METROLOGY,

GUJARAT STATE

Licence to repair of weights, measures, weighing or measuring instruments.

Licence No..... Year

1. The Controller of Legal metrology hereby grants to
(Name and address of party or parties) a licence to repair the following:-
(Include details of the weights, measures, weighting instruments or measuring instruments that are licenced to be repaired by the party).

Weights	Measures	Weighing Instruments	Measuring instruments

2. The licence is valid for the party named above in respect of his workshop located at

3. Address of the office if different than workshop address :
.....
.....

4. This licence is valid from to

5. Details of employees

Sr. No.	Name of Employee	Joining Date	Birth date	Education Qualification	Designation	Monthly Salary	EPF No.	Remarks
1	2	3	4	5	6	7	8	9

6. The repairer shall comply with the conditions noted below. If he fails to comply with anyone of these, his licence is liable to be cancelled.

.....

(Signature)

Controller of legal Metrology

(Seal) Gujarat State.

Date

Place

Note: In the case of firm, its name with the names of all names of all persons having interest in the business should be given in paragraph 1.

INDEX

CONDITIONS OF LICENCE

1. The person in whose favour this licence is issued shall. -

(a) Comply with all the relevant provisions of the Act and Rules for the time being in force; and shall meet the basic minimum requirements for licensee repairers as prescribed.

(b) Not encourage or countenance any infringement of the provisions of the Act. or the Rules amended from time to time;

(c) Exhibit this licence in some conspicuous part of the premises to which it relates;

(d) Comply with any general or special directions that may be given by the Controller of legal metrology;

(e) Surrender the licence in the event of closure of business and/ or cancellation of Licence;

(f) Present the weights, measures, weighing or measuring instruments as the case may be duly repaired to the Legal Metrology Officer for undertaking verification and stamping as specified in rule 14(2) before delivery to the user.

(g) Submit the application for renewal of this licence as required under the rules within thirty days of expiry of the validity of the licence.

(h) Shall not charge repairing fee more than the maximum repairing fee prescribed for any weight or measures.

(i) Shall display conspicuously the repairing charges for the weights and measures to be repaired by him at his licensed workshop.

2. Every condition prescribed after the issue of this licence shall if notified in the Official Gazette, be binding on the persons to whom the licence has been granted.

Renewal entries

Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology

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SCHEDULE III

(See rule 11 (3))

Licensing Forms

FORM LD-3

PHOTO

OFFICE OF THE CONTROLLER OF LEGAL METROLOGY,

GUJARAT STATE

Licence to a dealer in weights, measures, weighing or measuring instruments.

Licence No..... Year

1. The Controller of Legal metrology hereby grants to
(Name and address of party or parties) a licence to deal in the following:-
(Include details of the weights, measures, weighting instruments or measuring instruments).

Weights	Measures	Weighing Instruments	Measuring instruments

2. The licence is valid for the party named above in respect of his premises located at

3. Address of branch office if any:
.....
.....

4. This licence is valid from to

5. Details of employees

Sr. No.	Name of Employee	Joining Date	Birth date	Education Qualification	Designation	Monthly Salary	EPF No.	Remarks
1	2	3	4	5	6	7	8	9

6. The dealer shall comply with the conditions noted below. If he fails to comply with anyone of these, his licence is liable to be cancelled.

.....

(Signature)

Controller of legal Metrology

Gujarat State

(Seal)

Date

Place

Note: In the case of firm, its name with the names of all names of all persons having interest in the business should be given in paragraph 1.

INDEX

CONDITIONS OF LICENCE

1. The person in whose favour this licence is issued shall. -

(a) Comply with all the relevant provisions of the Act and Rules for the time being in force;

(b) Not encourage or countenance any infringement of the provisions of the Act. or the Rules amended from time to time;

(c) Exhibit this licence in some conspicuous part of the premises to which it relates;

(d) Comply with any general or special directions that may be given by the Controller of legal metrology;

(e) Surrender the licence in the event of closure of business and/ or cancellation of Licence;

(f) Present the weights, measures, weighing or measuring instruments as the case may be manufactured and meant for use within the State, to the legal metrology officer for verification and stamping before sale;

(g) Submit the application for renewal of this licence as required under the rules within thirty days of expiry of the validity of the licence.

2. Every condition prescribed after the issue of this licence shall if notified in the Official Gazette, be binding on the persons to whom the licence has been granted.

Renewal entries

Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology

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SCHEDULE IV

(See rule 11 (4) and (5))

Office of Controller of Legal Metrology, Gujarat State

Licencing and renewal fees for manufacturers of, or repairers of, or dealers in weights and measures

Issue of licence / renewal of licence to:	Fee per year
(i) Manufacturers	Rs. 500/-
(ii) Repairers	Rs. 100/-
(iii) Dealers	Rs. 100/-

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SCHEDULE V

(See rule 11 (6))

Office of Controller of Legal Metrology, Gujarat State

Register of licenced Manufacturers/ Repairers/ Dealers of weights, measures, weighing / measuring instruments

Office of the

Licence Number	Photograph of responsible person	Date of issue/ renewal	Name and complete address of the manufacturer	Place where workshop/ factory is situated	Articles to be manufactured/ repaired/ sold	Trade mark/ monogram being used	Orders regarding cancellation of licence	Result of appeal	Details of licences held in any other state and	Details of prosecution cases if any against the licence holder	Signature of competent authority	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13

Note: Column (5) does not apply to dealers; column (7) does not apply to repairers and dealers.

SCHEDULE VI

See rule 11(8)

Office of Controller of Legal Metrology, Gujarat State

Security deposit to be made by licencee repairer

Repairer of weights and measures including weighing and measuring instruments.	Rs. 5000.00

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SCHEDULE VI A

Part-A

(See rule 11(11))

BASIC MINIMUM REQUIREMENTS FOR LICENCE HOLDERS

1) The workshop of the repairer shall not be in a residential premises.

2) The workshop should be having minimum 50 sq.m. areas and shall be **preferably** located on the ground floor or the basement. However, workshop will be permitted above ground floor if lift is provided in working condition in the building. The present licensee repairers shall comply with this provision within a time frame of 12 months from the date of notification of this Rules.

3) Minimum experience required :

The owner / partner in the repairer licence for repairing **electronic balance class-III and class-IV** (load cell based technology) shall be a diploma holder in Electronic / Electrical / Instrumentation Engineering in a government recognized institute. The skilled workers employed by him shall be holding Government recognized ITI electronic / electrical / instrumentation trade certificate.

The owner / partner in the repairer licence for repairing **electronic balance class-I and class-II** (magnet based technology) shall be a diploma holder in Electronic / Electrical / Instrumentation Engineering in a government recognized institute. The skilled workers employed by him shall be holding Government recognized ITI electronic / electrical / instrumentation trade certificate. Also skilled workers having experience of more than 1 year as Service Engineer / Service Technician in the manufacturing company of such magnet based electronic balances will be preferable.

4) All skilled workers of the licence holder will be issued a photo ID by the licence holder and photographs will also be affixed in the licence itself. Only such authorised skilled workers can present the weights and measures to the concerned Legal Metrology Officer for verification and stamping.

5(a) The equipments and machineries required for repairing mechanical weighing instruments shall be as per **TABLE-A**

5(b) The equipments and machineries required for repairing electronic weighing instruments shall be as per **TABLE-B**

5(c) All licencee repairers shall be required to keep loan sets as per **TABLE-C** for repairing of mechanical weighing instruments.

5(d) All licencee repairers shall be required to keep loan sets as per **TABLE-D** for repairing of electronic weighing instruments.

5(e) All licencee repairers shall be required to keep test weights and measures as per **TABLE-E.**

5(f) All licencee **manufacturers** shall be required to keep tools and accessories as per **TABLE-F** in their production workshop.

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TABLE-A

LIST OF EQUIPMENTS AND MACHINERIES REQUIRED FOR REPAIRING MECHANICAL WEIGHING INSTRUMENTS

SR. NO.	PARTICULARS	SIZE	NOS. – SET
1	VISE	75 mm 100 mm	1 no. 1 no.
2	SCISSOR	75 mm 100 mm	1 no. 1 no.
3	SPANNER SET	4 to 12 mm	1 no.
4	PLIER	38 mm	1 no.
5	FIX PLIER	Medium	1 no.
6	ROUND FILE	5 mm 12 mm	1 no. 1 no.
7	HALF ROUND FILE	5 mm 12 mm	1 no. 1 no.
8	FLAT FILE	4 mm 12 mm	1 no. 1 no.
9	DISMISS (SCREW DRIVER)		1 set
10	BLOW STOVE		1 No.
11	FLAT PUNCH	10 to 38 mm	1 set 7 no.
12	ROUND PUNCH	For 1 kg to 20 gram and for bullion weight and scale	1 set 7 no.
13	RECTANGULAR PUNCH	For 5 kg to 50 kilogram	1 set 4 nos.
14	NUMBER PUNCH – ENGLISH	0 to 9	1 set t9 nos.
15	HINDI TYPE	For Kilogram and for series of gram	1 no. each
16	MELTING POT FOR MELTING OF LEAD	Medium	1 No.
17	HACKSAW WITH BLADE	300 mm	1 No.
18	EMERY STONE	300 mm	1 No.
19	WIRE BRUSH		2 No.
20	ENGLISH LETTERS (A,B,C,D, TYPE SET) PUNCH SET	A to Z CAPITAL a to z SMALL	1 set 1 set
21	HAND DRILL WITH SPANNER		1 No.
22	HAMMERS	500 gram, 200 gram, 100 gram, 50 gram	4 Nos.
23	LADLE		1 No.
24	JACK FOR WEIGHBRIDGE PLATFORM		1 No.

INDEX

TABLE-B

LIST OF EQUIPMENTS AND MACHINERIES REQUIRED FOR REPAIRING ELECTRONIC WEIGHING INSTRUMENTS

(1) DIGITAL MULTI METER
(2) SOLDERING IRON
(3) DESOLDERING GUN
(4) SOLDERING WIRE
(5) NUMBER PUNCH SET – 0 to 9
(6) NOSE PLIER AND PLIER
(7) SCREW DRIVER SET
(8) ALLEN KEY
(9) DRILL MACHINE
(10) FLAT AND ROUND FILE SET
(11) BULLION WEIGHT – BULLION FROM 1 KILOGRAM to 1 MILLIGRAM
(12) C.I. WEIGHTS – 20 KILOGRAM, 10 KILOGRAM, 5 KILOGRAM, 2 KILOGRAM to 500 GRAM
(13) HAMMER SET
(14) CUTTER
(15) SPANNER SET
(16) LEAD SEAL (SQUARE)
(17) SEAL WIRE
(18) ABCD TYPE SET (CAPITAL SET-1, SMALL SET-1) PUNCHES

TABLE-C

LIST OF EQUIPMENTS FOR ALL LICENSED REPAIRERS SHALL BE REQUIRED TO KEEP LOAN SETS FOR REPAIRING OF MECHANICAL WEIGHING INSTRUMENTS.

(a) LICENCE FOR GUJARAT STATE

(1)	SCALE – C CLASS	100 KILOGRAM	1 NO
		50 KILOGRAM	1 NO.
		20 KILOGRAM	1 NO.
		10 KILOGRAM	1 NO.
		5 KILOGRAM	3 NOS.
		2 KILOGRAM	4 NOS.
		1 KILOGRAM	4 NOS.
		TOTAL	15 SET
(2)	WEIGHTS	500 GRAM	15 NOS.
		200 GRAM	15 NOS
		10 KILOGRAM	15 NOS
		5 KILOGRAM	15 NOS.
		20 KILOGRAM	15 NOS.
		TOTAL	75 NOS.
(3)	CONICAL MEASURE	2 LITRE	1 NO.
		1 LITRE	1 NO.
		500 MILLILITRE	1 NO.
		200 MILLILITRE	1 NO.
		100 MILLILITRE	1 NO.
		TOTAL	5 NOS.
(4)	DIPPING MEASURE	2 LITRE	1 NO.
		1 LITRE	1 NO.
		500 MILLILITRE	1 NO.
		200 MILLILITRE	1 NO.
		100 MILLILITRE	1 NO.
		50 MILLILITRE	1 NO.
		20 MILLILITRE	1 NO.
		TOTAL	7 NOS.
(5)	CLOTH METER		1 NO.
(6)	COUNTER MACHINE	2 KILOGRAM	5 NOS.
		5 KILOGRAM	5 NOS.

INDEX

(B) LICENCE FOR A DISTRICT :

(1)	SCALE – C CLASS	20 KILOGRAM	1 NO.
		10 KILOGRAM	1 NO.
		5 KILOGRAM	1 NO.
		2 KILOGRAM	1 NO.
		1 KILOGRAM	1 NO.
		TOTAL	5 NOS.
(2)	WEIGHTS	20 KILOGRAM	1 NO.
		10 KILOGRAM	1 NO.
		5 KILOGRAM	1 NO.
		2 KILOGRAM TO 50 GRAM WEIGHTS	5 SETS
		TOTAL	10 NOS.
(3)	METER	CLOTH METER	NO.1
(4)	CONICAL MEASURE	1 LITRE	NO.1
		500 MILLILITRE	NO.1
		200 MILLILITRE	NO.1
		100 MILLILITRE	NO.1
		TOTAL	4 NOS.
(5)	DIPPING MEASURE	1 LITRE	NO.1
		500 MILLILITRE	NO.1
		200 MILLILITRE	NO.1
		100 MILLILITRE	NO.1
		TOTAL	4 NOS.
(6)	COUNTER BALANCE	2 KILOGRAM	3 NOS.
		5 KILOGRAM	2 NOS.
		TOTAL	5 NOS.
(7)	BULLION WEIGHTS	1 KILOGRAM TO 1MILLIGRAM – 2 SET.	
(8)	SCALE B CLASS	5 KILOGRAM	1 NO.
		1 KILOGRAM	2 NOS.
		500 GRAM	2 NOS.
		100 GRAM	2 NOS.

TABLE-D

LIST OF EQUIPMENTS FOR ALL LICENSED REPAIRERS SHALL BE REQUIRED TO KEEP LOAN SETS FOR REPAIRING OF ELECTRONIC WEIGHING INSTRUMENTS.

(1) 300 GRAM / 10 MILLIGRAM

(2) 5 KILOGRAM / 500 MILLIGRAM

(3) 10 KILOGRAM / 1 GRAM

(4) 30 KILOGRAM / 2 GRAM

(5) 30 KILOGRAM 5 GRAM

(6) 50 KILOGRAM / 5 GRAM

REPAIRER HAS TO KEEP MINIMUM OF ONE ELECTRONIC BALANCE EACH OF ABOVE AS LOAN SET.

TABLE-E

LIST OF EQUIPMENTS FOR ALL LICENSED REPAIRERS SHALL BE REQUIRED TO KEEP TEST WEIGHTS AND MEASURES

(1) WEIGHT TESTING FOR ELECTRONIC BALANCE :
- (1) 200 GRAM / 0.01 MILLIGRAM
- (2) 2 KILOGRAM / 10 MILLIGRAM
- (3) 20 KILOGRAM / 100 MILLIGRAM
- (4) 50 KILOGRAM / 1 GRAM

(2) WEIGHTS FOR TESTING OF ELECTRONIC BALANCE

20 KILOGRAM	4 NOS.
10 KILOGRAM	2 NOS.
5 KILOGRAM	2 NOS.
2 KILOGRAM	2 NOS.
1 KILOGRAM	2 NOS.
500 GRAM TO 1 GRAM	2 SET

(3) 2 KILOGRAM TO 20 MILLIGRAM BULLION WEIGHTS – ONE SET

(4) METER — CLOTH METER

(5) CONICAL MEASURE

10 LITRE	NO.1
5 LITRE	NO.1
2 LITRE	NO.1
1 LITRE	NO.1
500 MILLILITRE	NO.1
200 MILLILITRE	NO.1
100 MILLILITRE	NO.1

(6) DIPPING MEASURE

2 LITRE	NO.1
1 LITRE	NO.1
500 MILLILITRE	NO.1
200 MILLILITRE	NO.1
100 MILLILITRE	NO.1
50 MILLILITRE	NO.1
20 MILLILITRE	NO.1

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TABLE-F

LIST OF TOOLS AND ACCESSORIES FOR THAT ALL THE LICENCEE MANUFACTURER SHALL BE REQUIRED IN THEIR PRODUCTION WORKSHOP.

(1) PORTABLE DRILL MACHINE
(2) BENCH TYPE DRILL MACHINE
(3) WELDING MACHINE
(4) PORTABLE DISC GRINDER
(5) BENCH GRINDER
(6) GAS CUTTING SET WITH PUG MACHINE
(7) MAGNET DRILL FOR WEIGHBRIDGE MANUFACTURING
(8) DIGITAL MULTI COLOUR
(9) SOLDERING IRON
(10) DESOLDERINGGUN
(11) SOLDERING WIRE
(12) NUMBER PUNCH SET AND ABCD PUNCH SET
(13) NOSE PLIER AND PLIER
(14) SET OF SCREW DRIVER
(15) ALLEN KEY SET
(16) DRILL MACHINE SPANNER SET
(17) FLAT AND ROUND FILE SET
(18) BULLION WEIGHT – 2 kg TO 1 mg
(19) C.I. WEIGHTS – 20 KILOGRAM, 10 KILOGRAM, 5 KILOGRAM, 2 KILOGRAM TO 50 GRAM SET
(20) HAMMER SET
(21) CUTTER
(22) SPANNER SET
(23) LID SHEEL (SQUARE)
(24) SEAL WIRE
(25) WEIGHBRIDGE MANUFACTURER WILL HAVE TO FACILITATE OVERHEAD CRANE FOR MORE THAN 5 TON CAPACITY WEIGHBRIDGE
(26) TESTING WEIGHTS SHALL BE OF MINIMUM 1/4TH CAPACITY OF THE MAXIMUM CAPACITY OF WEIGHBRIDGE TO BE MANUFACTURED.

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SCHEDULE VII

(See rule 13)

FORM LM-4

Register to be maintained by the manufacturers of weights and measurers.

1- Name and address of the manufacturer

2- Description of the weight or measure

3- (i) No. of the manufacturing licence

(ii) Date on which the licence was issued

(i) Period of validity of the licence

4- Particulars of order, if any, suspending or revoking

the licence.

(A) STOCK STATEMENT

Sr. No.	Opening Stock	Quantity manufactured during the month	Total (2+3)	Quantity sold during the month	Closing stock (4-5)
1	2	3	4	5	6

(B) TRANSACTION STATEMENT

Sr. No.	Des-patch vou-cher no. & date	Type of Weight / Measure	Quan-tity	Sold inside or outside State (I / O)	Category of purchaser Dealer / Trader (D /	Details of Dealer			Details of trader				
						Licence No.	Name	Address	Name	Address	EPIC No.	Ration Card No.	
1	2	3	4	5	6	7	8	9	10	11	12	13	

Note :

In column 5 - Letter **"I"** stands for Inside State and Letter **"O"** stands for Outside State.
In column 6 - Letter **"D"** stands for Dealer and letter **"T"** stands for Trader
Only the letters **I / O** and **D / T** are to be mentioned the prescribed columns.

* It is mandatory to provide the above details every quarter in the form of an online return alongwith the signed paper copy to the concerned office.

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Schedule VII

(See rule 13)

FORM LR-4

Register to be maintained by the repairer in respect of weights, Measures

Name and address of the repairer Licence No.....

Date of Licensing

REPAIRER RETURN

Sr. No.	Date	Details of user				Last Verifi-cation Certi-ficate No. and Date	Details of weights / measures / instruments		Rece-ipt No. and date of issue to the user	Bill No.	Veri-fication certi-ficate No. and date	Remarks
		Name	Add- ress	Elec-tion card No.	Ration Card No.		Weights / measures / instru-ments (codes only)	Nos.				
1	2	3	4	5	6	7	8	9	10	11	12	13

* It is mandatory to provide the above details every quarter in the form of an online return alongwith the signed paper copy to the concerned office.

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Schedule VII

(See rule 13)

FORM LD-4

Register to be maintained by dealer in weights and measures.

1- Name and address of the dealer

2- Description of the weight or measure

3- (i) Dealer licence No.

(ii) Date on which the licence was issued

(iii) Period of validity of licence

4- Particulars of order, if any suspending or

Revoking the licence.

5- Category of weight or measure

(Category A or B)

(A) STOCK STATEMENT

Sr. No.	Opening Stock	Quantity sold during the month	Closing stock (2-3)
1	2	3	4

(B) TRANSACTION STATEMENT

Sr. No.	Des-patch vou-cher no. & date	Type of Weight / Measure	Quan-tity	Sold inside or outside State (I / O)	Category of purchaser Dealer / Trader (D / T)	Details of Dealer			Details of trader				
						Licence No.	Name	Address	Name	Address	EPIC No.	Ration Card No.	
1	2	3	4	5	6	7	8	9	10	11	12	13	

Note :

In column 5 - Letter **"I"** stands for Inside State and Letter **"O"** stands for Outside State.
In column 6 - Letter **"D"** stands for Dealer and letter **"T"** stands for Trader
Only the letters **I / O** and **D / T** are to be mentioned the prescribed columns.

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Schedule VIII

(See rule 16 (3))

Office of the Controller, legal metrology, Gujarat State

Certificate of verification

Name of Legal Metrology Officer No.....

I hereby certify that I have this day verified and stamped / rejected the under mentioned weights, measurers, etc.

Belonging to Locality

Ration Card No. / Voter ID No. / PAN No.

Quantity	Denomination		Weighing instruments				Measuring Instrument instruments	Verification Fee Rs. p	Late fee if any	Carriage, conveyance adjusting charges etc.
	Weights	Measures	Capacity	Class	Manufac	Type				
1	2	3	4	5	6	7	8	9		10

Total Rs. deposited vide T. Receipt/ Money receipt No. dated

Last VC No. and date :

Repaired by/ Used by

..... (Signature)

Next verification due on Legal Metrology Officer

Note:-

(1) The trader / user can present his weights and measures directly to the Legal Metrology Officer also.

(2) In the case of rejected weights, measures, etc the legal metrology officer shall give separate Certificate of rejection mentioning the reasons of rejection against each item.

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SCHEDULE IX

(See rule 14 (1) and 17)

Fee payable for verification and Stamping of Weights and Measures and Weighing and Measuring Instruments

1. (a) Bullion Weights:

Denomination (1)	Fee per piece (Rs.) (2)
10 Kg.	30.00
5 Kg.	20.00
2 Kg.	20.00
1 Kg.	20.00
500 g.	15.00
200 g.	15.00
100 g.	15.00
50 g.	15.00
20 g.	15.00
10 g.	15.00
5 g.	15.00
2 g.	15.00
1g	15.00

(b) **Carat Weights:**

100g (500 c)	20.00
40g (200 c)	20.00
20g (100 c)	20.00
10g (50 c)	20.00
4g (20 c)	20.00
2g (10 c)	20.00
1g (5 c)	20.00
400mg (2 c)	20.00
200mg (1 c)	20.00
100mg (0.5 c)	20.00
40mg (0.02 c)	20.00
20mg (0.01 c)	20.00
10mg (0.05 c)	20.00
4mg (0.02c)	20.00
2mg (0.01 c)	20.00
1mg (0.005c)	20.00

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(c) Cylindrical knob type weights:

Denomination (1)	Fee per piece (Rs.) (2)
10 Kg.	20.00
5 Kg.	20.00
2 Kg.	15.00
1 Kg.	10.00
500 g.	5.00
200 g.	5.00
100 g.	5.00
50 g.	5.00
20 g.	5.00
10 g.	5.00
5 g.	5.00
2 g.	5.00
1g	5.00

(d) Sheet metal Weight (other than Bullion)

Denomination (1)	Fee per piece (Rs.) (2)
500 mg.	5.00
200 mg.	5.00
100 mg.	5.00
50 mg.	5.00
20 mg.	5.00
10 mg.	5.00
5 mg.	5.00
2 mg.	5.00
1 mg.	5.00

(e) Iron hexagonal, knob type weights and parallelepiped weights:

Denomination (1)	Fee per piece (Rs.) (2)
50 Kg.	25.00
20 Kg.	20.00
10 Kg.	20.00
5 Kg.	20.00
2 Kg.	15.00
1 Kg.	10.00
500 g.	5.00
200 g.	5.00
100 g.	5.00
50 g.	5.00

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Denomination (1)	Fee per piece (Rs.) (2)
20g	5.00
10g	5.00
5g	5.00
2g	5.00
1g	5.00

(f) Standard weights for testing of high capacity weighing machines:

Denominations	Fee corresponding to Max permissible relative error 0.5/10000 in Rs.	Fee corresponding to Max permissible relative error 3.3/10000, 1.7/10000 and 1.0/10000 in Rs.
100kg	75.00	50.00
200kg	150.00	100.00
500kg	300.00	200.00
1000kg	750.00	500.00
2000kg	1500.00	1000.00
5000kg	3000.00	2000.00

2. Capacity Measures:

Denomination (1)	Fee per piece (Rs.) (2)
100 litre and above	Rs. 50 for the Ist 100 litre plus Rs. 7 for every additional 100 litre or part thereof subject to maximum of Rs. 5000.
50 l	50.00
20 l	20.00
10 l	20.00
5 l	10.00
2 l	10.00
1 l	10.00
500 ml	10.00
200 ml	10.00
100 ml	10.00
50 ml	10.00
20 ml	10.00
10 ml	10.00
5 ml	10.00
2 ml	10.00

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1 ml	10.00

3. **Length Measures:**

(a) **Non-Flexible –**

Denomination (1)	Fee per piece (Rs.) (2)
2 m.	10.00
1 m.	10.00
0.5 m.	20.00
1 m. graduated (at every cm)	20.00
0.5 m. graduated (at every cm)	20.00

(b) **Fabric Plastic/ Woven/Steel tapes –**

Accuracy Class (1)	Fee per metre in Rs.
Class-I	1.00
Class-II	0.50
Class-III	0.50

(c) **Folding Scales –**

Denomination (1)	Fee per piece (Rs.) (2)
1 m.	10.00
0.5 m.	10.00

(d) **Surveying Chain –**

Denomination (1)	Fee per piece (Rs.) (2)
30 m.	100.00
20 m.	100.00

4. **Beam Scale Class A & B:**

Denomination (1)	Fee per piece (Rs.) (2)
200 kg.	400.00
100 kg.	300.00
50 kg.	150.00
20 kg.	150.00
10 kg.	150.00
5 kg.	100.00
2 kg.	100.00
1 kg.	100.00
500 g and below	60.00

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5. Beam Scales Class C& D:

Denomination (1)	Fee per piece (Rs.) (2)
1000 kg.	200.00
500 kg	200.00
300 kg	200.00
200 kg	100.00
100 kg	100.00
50 kg	20.00
20 kg	20.00
10 kg	20.00
5 kg	15.00
2 kg	15.00
1 kg	15.00
500 g and below	10.00

6. Non-Automatic Weighing Instruments - Mechanical (analogue) Class III & IIII :

Denomination (1)	Fee per piece (Rs.) (2)
400 t	4000.00
300 t	3000.00
200t	3000.00
150 t	2000.00
100 t	2000.00
80 t	2000.00
60 t	2000.00
50 t	2000.00
40 t	2000.00
30 t	2000.00
25 t	2000.00
20 t	2000.00
15 t	2000.00
10 t	1000.00
5 t	500.00
3 t	400.00
2 t	400.00

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Denomination (1)	Fee per piece (Rs.) (2)
1500 kg	300.00
1000 kg	300.00
500 kg	300.00
300 kg	200.00
250 kg	200.00
200 kg	100.00
150 kg	100.00
100 kg	100.00
50 kg	100.00
30 kg	100.00
25 kg	60.00
20 kg	60.00
15 kg	30.00
10 kg	30.00
5 kg	30.00
3 kg	30.00
2 kg	30.00
1 kg	15.00
500 g. and below	15.00

7. **Non-Automatic Weighing Instruments - Electronic Class III & IIII :**

Denomination (1)	Fee per piece (Rs.) (2)
400 t	4000.00
300 t	3000.00
200t	3000.00
150 t	2000.00
100 t	2000.00
80 t	2000.00
60 t	2000.00
50 t	2000.00
40 t	2000.00
30 t	2000.00
25 t	2000.00
20 t	2000.00

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Denomination (1)	Fee per piece (Rs.) (2)
15 t	2000.00
10 t	1000.00
5 t	1000.00
3 t	500.00
2 t	500.00
1500 kg	250.00
1000 kg	250.00
500 kg	250.00
300 kg	200.00
250 kg	200.00
200 kg	200.00
150 kg	200.00
100 kg	200.00
50 kg	200.00
30 kg	200.00
25 kg	200.00
20 kg	100.00
15 kg	100.00
10 kg	100.00
5 kg	100.00
3 kg	100.00
2 kg	100.00
1 kg	100.00
500 g. and below	100.00

8. **Non Automatic Weighing instruments both mechanical and electronics class I & II:**

Capacity	Fee (Rs.)
Exceeding 50 t	3000.00
Not exceed 50t but exceed 10t	2000.00
Not exceed 10t but exceed 1t	1000.00
Not exceed 1t but exceed 50kg	500.00
Not exceed 50kg but exceed 10kg	250.00
Not exceed 10kg	200.00

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8.A Automatic Weighing Instruments:

Capacity	Fee in Rs.
Exceeding 100 t	4000.00
Not exceeding 100t but exceeding 50t	3000.00
Not exceeding 50t but exceeding 10t	2000.00
Not exceeding 10t but exceeding 1t	1000.00
Not exceeding 1t but exceeding 50kg	500.00
Not exceeding 50kg but exceeding 10kg	250.00
Not exceeding 10kg	200.00

9. Volumetric measuring instruments:

(a) Dispensing pumps each pump : Rs.1000.00 per unit

(b) Totalizing counter : Rs. 500.00 per unit

(c) Other instruments :

Capacity	Fee in Rs.
Exceeding 100 litre	Rs. 500 for the lst 100 liters plus Rs. 250 for every additional 100 liters or part thereof
Not exceeding 100 litre but exceeding 50 litre	500.00
Not exceeding 50 litre but exceeding 20 litre	250.00
Not exceed 20 litre	200.00

10. Flow meters:

Flow rate up to 100 litre/ min. Rs.2000.00

Above 100 litre/ min upto 500 litre/ min Rs.3000.00

Above 500 litre /min. Rs.5000.00

11. Linear Measuring Instruments:

Taxi, Autorishaw meters Rs.100.00

Other meters Rs.50 for the lst 1000 m. or part there of

Plus Rs. 5.00 for every additional 100 m. or part thereof

12. Clinical Thermometer Rs. 0.50 per unit

13. Water meter Rs. 25.00 per unit

14. Peg Measure:

30 ml	50.00
60 ml	50.00
100 ml	50.00

15. CNG Dispensers: Rs. 1000.00 per unit

16. LPG Dispensers: Rs. 1000.00 per unit

17. Counter Machine:

Capacity up to 10 kg Rs. 20.00

Capacity above 10 kg Rs. 50.00

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SCHEDULE X

(See rule 25(1))

Form of appeal against an order of a Legal Metrology Officer or Controller of Legal Metrology:-

1. Name and address of the appellant :-
2. No. and date of order of Legal Metrology Officer/ Controller of Legal Metrology against which the appeal is preferred :-
3. Whether the appellant desires to be heard in person or through an authorized representative :-
4. Grounds of appeal

SCHEDULE XI

(See rule 26)

Compounding fees for various offences

Sr. No.	Section of the Act and nature of offence	Penal Section of the Act	Compounding fee
1	S. 8(3) Use of weight, measure or numeration other than the Standard weight, measure or numeration	25	Rs.2500.00
2	S. 8(4) Manufacture of weight or measure not conforming to Standards	27	Rs.2000.00
3	S. 8(4) Import of weight or measure not conforming to Standards	39	Rs.5000.00
4	S. 10 Transaction or dealing or contract in respect of goods etc , by weight , measure or number than prescribed.	28	Rs.1000.00
5	S. 11 Quote or make announcement or issue or exhibit of price list or changing of price than in accordance with standard unit of weight or measure or numeration.	29	Rs.1000.00
6.	S. 12 Demanding or receiving any articles or thing on service in excess or less than the quantity specified by contract or agreement. For Hawkers of Vgetables/Fruits For Vegetables/Fruits Traders For Fair Price Shop For Hawkers delivering less Kerosene for domestic purpose For less delivery except dispensing Pump / GAS filling plant / LPG dealer / CNG dealer / Weighbridge For Dispensing Pump / GAS filling plant / LPG dealer / CNG dealer / Weighbridge	30	Rs. 150.00 Rs. 1500.00 Rs. 1500.00 Rs 500.00 Rs 3000.00 Rs 7500.00
7	S. 17 Maintenance of records, registers by manufacturer, dealer or repairer and production of weight, measure document, register on demand	31	Rs.500.00
8	S.18(1) Compliance of declaration in respect of pre-packaged commodity by manufacturer/ dealer	36(1)	Rs 500.00

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Sr. No.	Section of the Act and nature of offence	Penal Section of the Act	Compounding fee
	For Retailer For Whole seller For Manufacture/Packer/ importer		Rs 1000.00 Rs 2500.00
9	S. 18(1) Compliance of net quantity- requirement of pre-packaged commodity by manufacturer	36(2)	Rs.10000.00
10	S. 19 Import of weight or measure without registration	38	Rs.2500.00
11	S. 23 Manufacturer/ repair/ sale of weight or measure only with licence	45	Rs.2000.00
12	S. 24 Use of verified weight or measure in transaction or protection	33	Rs. 2000.00
13	S. 53(3) Provision of any rule made under the Act	53(3)	Rs 5000.00
14	Rule 14(1) Fails without any reasonable cause to present weight or measure for re verification For Hawkers of Vegetables / Fruits For Traders gold-jwellary For Industries and Manufacturer under PCR For other category except above	Rule 25	 Rs 100.00 Rs 1000.00 Rs 2000.00 Rs 500.00

SCHEDULE XII
(See rule 11(5))

Form of alteration in license

1	Name of firm	;	
2	Nature of the firm	:	Individual/partnership/Pvt. Ltd/Public Ltd/ Co-Operative.
3	Firm Commencement date	:	
4	Details of alteration require	:	Existing:
			Propose:
5	Documents attached	:	

Note:
1 For any alteration pre sanction is mandatory except in the case of death
2 Only in case of death of person, application to delete the name from license require to be submitted with in 60 days from the death.

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SCHEDULE XIII

(See rule 15(1)

APPLICATION FOR STAMPING OF WEIGHTS AND MEASURES

To,
.....
(Name of Inspector of Legal Metrology)
.....
Office of the Inspector of Legal Metrology
.....
(Identification Number)

Name of Traders :.....

Residence address :

Address of Business :

Telephone No. :(R)

(O).....

(M)

Type of Business :

Name of Police station (applicable) :

Ration Card Number :

Election Card Number :.....

VAT Number :

I am submitting the details of weights and measures in the statement attached herewith used by me. You are requested to do the verification and stamping work as per rules.

(Signature of the Applicant)

Place :
Date :

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DETAILS OF WEIGHTS AND MEASURES

Details of Weights and Measures presented for stamping							Number and date of last verification certificate	Reason for not submitting the last verification certificate
Number and Capacity		Weighing instruments				Measuring instruments		
Weights	Measures	Type	Manufacturer	Capacity	Class			
1	2	3	4	5	6	7	8	9

SCHEDULE XIV

(See rule 21(3))

Punch of eight - pointed star for obliterating stamps.



By order and in the name of the Governor of Gujarat,

Y.B.Patel
Additional Secretary to Government.

Government Central Press, Gandhinagar.

Extra No. 3 REGISTERED No. G/GNR/2

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सत्यमेव जयते

The Gujarat Government Gazette

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

HOME DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 21st January, 2011

REPRESENTATION OF THE PEOPLE ACT, 1951

No.GG/2/SB-I\ELC/102011\218 .- In pursuance of the provisions of Section 28-A of the Representation of the People Act, 1951 and in view of the directions contained in the Election Commission of India's letter No.434/I/ESO26/94/MCS, dated 24th October, 1994, the Government of Gujarat hereby declares the following Police Officers as designated officers for the purposes of Section 28-A of Representation of People Act 1951 for conduct of the bye-election to the Gujarat Legislative Assembly from 75-Khadia Constituency comprised within Ahmedabad, District to be held in the month of February- 2011 namely:-

1. The Director General of Police / Additional Director General of Police / Inspector General of Police, Gujarat State, Gandhinagar and
2. The Commissioner of Police Ahmedabad City, Ahmedabad,\ The Range Inspector General of Police Ahmedabad, Range and all Police Officers below them of the State Government entrusted with the duties in connection with the conduct of the bye-election to the Legislative Assembly to be held in the month of February- 2011.
3. This order shall be effective from 21st January- 2011 and shall remain inforce till the date of completion of process of the said election.

By order and in the name of the Governor of Gujarat.

D. R. PATEL,
Under Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 4 REGISTERED No. G/GNR/2

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar. 27th January, 2011.

CONSTITUTION OF INDIA

No. PT/2/2011/MVO/10/2010/1131/KH:- In exercise of the powers conferred by the proviso to article 309 of the Constitution of India, the Governor of Gujarat hereby makes the following rules further to amend the Inspector of Motor Vehicles Class II, Recruitment Rules, 2006, namely:-

1. These rules may be called the Inspector of Motor Vehicles, Class II, (Amendment) Rules, 2011.
2. In the Inspector of Motor Vehicles, Class II, Recruitment Rules, 2006, rule 5, shall be deleted.

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 5

REGISTERED No. G/GNR/2

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar. 31st January, 2011.

Commissions of Inquiry Act, 1952.

No. GK/3/2011/COI/102009/205/A : WHEREAS the Government has, under Government Notification, Legal Department No. GK/11/2010-COI/102009/205/A, dated the 8th July, 2009, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the matters mentioned in paragraph 2 of the said notification;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 30th November, 2009 as provided in the aforesaid Notification of 8th July, 2009, and thereafter within the time limit extended till 31st January, 2011, as provided in the different subsequent Notifications;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the State Government;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 31st March, 2011;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No. GK/11/2010-COI/102009/205/A, dated the 8th July, 2009, as follows, namely :-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 31st January, 2011" the words, figures and letters "on or before the 31st March, 2011" shall be substituted.

By order and in the name of the Governor of Gujarat,

K. M. LALA
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 6

REGISTERED No. G/GNR/2

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Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar. 31st January, 2011.

Commissions of Inquiry Act, 1952.

No. GK/4/2011/COI/102009/33/A : WHEREAS the Government has, under Government Notification, Legal Department No. GK/8/2009/COI/102009/33/A, dated the 6th June, 2009, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the matters mentioned in paragraph 2 of the said notification;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 31st January, 2011 as provided in the aforesaid Notification of 6th June, 2009;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the State Government;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 31st January, 2013;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No GK/8//2009/COI/102009/33/A, dated the 6th June, 2009, as follows, namely :-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 31st January, 2011" the words, figures and letters "on or before the 31st January, 2013" shall be substituted.

By order and in the name of the Governor of Gujarat,

K. M. LALA,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

Extra No. 7

REGISTERED No. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/4/CPA/102010/ 867854/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri Bhavsar Girishkumar Jaswantlal as the Member of District Consumer Disputes Redressal Forum, Ahmedabad (Rural) with headquarters at Ahmedabad.

Shri Bhavsar Girishkumar Jaswantlal, shall hold his office as Member of the Consumer Disputes Redressal Forum, Ahmedabad (Rural) for a period of five years or up to the age of 65 years whichever is earlier from the date he resumes the charge of his office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/1098/ 2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) He appointed as Member of a District Forum should ensure that his activity/ personal interest should not come in the way of functioning of the District Forum and should not conflict with the interest of the Forum, in any manner.

(3) He should keep in mind that it is a full time job and during the working hours of the Forum, he should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then he should surrender his "Sanad" before the State Bar Council so long as he serves as Member of the Forum.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/5/CPA/102010/ 867854/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Ms. Patadia Naina Pritambhai as the Member of District Consumer Disputes Redressal Forum, Mehsana with headquarters at Mehsana.

Ms. Patadia Naina Pritambhai, shall hold her office as Member of the Consumer Disputes Redressal Forum, Mehsana for a period of five years or up to the age of 65 years whichever is earlier from the date She resumes the charge of her office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/ 1098/ 2860/D, dated 30/11/2004, G.R. NO : CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) She appointed as Member of a District Forum should ensure that her activity/ personal interest should not come in the way of functioning of the District Forum and should not conflict with the interest of the Forum, in any manner.

(3) She should keep in mind that it is a full time job and during the working hours of the Forum, she should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then she should surrender her "Sanad" before the State Bar Council so long as she serves as Member of the Forum.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/6/CPA/102010/ 867854/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Dr. Kathiriya Tushar Ravjibhai as the Member of District Consumer Disputes Redressal Forum, Amreli with headquarters at Amreli.

Dr.Kathiriya Tushar Ravjibhai, shall hold his office as Member of the Consumer Disputes Redressal Forum, Amreli for a period of five years or up to the age of 65 years whichever is earlier from the date he resumes the charge of his office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/ 1098/ 2860/D, dated 30/11/2004, G.R. NO : CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) He appointed as Member of a District Forum should ensure that his activity/ personal interest should not come in the way of functioning of the District Forum and should not conflict with the interest of the Forum, in any manner.

(3) He should keep in mind that it is a full time job and during the working hours of the Forum, he should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then he should surrender his "Sanad" before the State Bar Council so long as he serves as Member of the Forum.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/7/CPA/102010/ 867854/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Ms.Jani Manjulaben Dayashanker as the Member of District Consumer Disputes Redressal Forum, Amreli with headquarters at Amreli.

Ms.Jani Manjulaben Dayashanker, shall hold her office as Member of the Consumer Disputes Redressal Forum, Amreli for a period of five years or up to the age of 65 years whichever is earlier from the date she resumes the charge of her office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/1098/ 2860/D, dated 30/11/2004, G.R. NO : CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) She appointed as Member of a District Forum should ensure that her activity/ personal interest should not come in the way of functioning of the District Forum and should not conflict with the interest of the Forum, in any manner.

(3) She should keep in mind that it is a full time job and during the working hours of the Forum, she should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then she should surrender her "Sanad" before the State Bar Council so long as she serves as Member of the Forum.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/8/CPA/102010/ 867854/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri Shah Padmanabh Harikrishna as the Member of District Consumer Disputes Redressal Forum, Surat (Addl.) with headquarters at Surat.

Shri Shah Padmanabh Harikrishna, shall hold his office as Member of the Consumer Disputes Redressal Forum, Surat (Addl.) for a period of five years or up to the age of 65 years whichever is earlier from the date he resumes the charge of his office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/ 1098 / 2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) He appointed as Member of a District Forum should ensure that his activity/ personal interest should not come in the way of functioning of the District Forum and should not conflict with the interest of the Forum, in any manner.

(3) He should keep in mind that it is a full time job and during the working hours of the Forum, he should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then he should surrender his "Sanad" before the State Bar Council so long as he serves as Member of the Forum.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/9/CPA/102010/ 867854/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Joshi Dhirajlal Valjibhai as the Member of District Consumer Disputes Redressal Forum, Kheda with headquarters at Nadiad.

Joshi Dhirajlal Valjibhai,shall hold his office as Member of the Consumer Disputes Redressal Forum, Kheda for a period of five years or up to the age of 65 years whichever is earlier from the date he resumes the charge of his office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/1098/2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) He appointed as Member of a District Forum should ensure that his activity/ personal interest should not come in the way of functioning of the District Forum and should not conflict with the interest of the Forum, in any manner.

(3) He should keep in mind that it is a full time job and during the working hours of the Forum, he should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then he should surrender his "Sanad" before the State Bar Council so long as he serves as Member of the Forum.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/10/CPA/102010/ 867854/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Ms.Parmar Chetnaben Devjibhai as the Member of District Consumer Disputes Redressal Forum, Bharuch with headquarters at Bharuch.

Ms.Parmar Chetnaben Devjibhai, shall hold her office as Member of the Consumer Disputes Redressal Forum, Bharuch for a period of five years or up to the age of 65 years whichever is earlier from the date she resumes the charge of her office.

Terms and conditions for the above appointment is as below :-

(1) The terms and conditions shall be applicable as decided in the G.R. No: CPA/ 1098/ 2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) She appointed as Member of a District Forum should ensure that her activity/ personal interest should not come in the way of functioning of the District Forum and should not conflict with the interest of the Forum, in any manner.

(3) She should keep in mind that it is a full time job and during the working hours of the Forum, she should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then she should surrender her "Sanad" before the State Bar Council so long as she serves as Member of the Forum.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/11/CPA/102010/ 867854/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Ms.Lataben Motilal Bathar as the Member of District Consumer isputes Redressal Forum, Banaskantha with headquarters at Palanpur.

Ms.Lataben Motilal Bathar, shall hold her office as Member of the Consumer Disputes Redressal Forum, Banaskantha for a period of five years or up to the age of 65 years whichever is earlier from the date she resumes the charge of her office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/ 1098/ 2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) She appointed as Member of a District Forum should ensure that her activity/ personal interest should not come in the way of functioning of the District Forum and should not conflict with the interest of the Forum, in any manner.

(3) She should keep in mind that it is a full time job and during the working hours of the Forum, she should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then she should surrender her "Sanad" before the State Bar Council so long as she serves as Member of the Forum.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/12/CPA/102010/867854/D : In exercise of the powers conferred by clause (b) of section 9 read with sub-section (1) (b), (2) and (3) of section-16 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Ms.Jani Jyoti Pareshkumar, as the Member of State Consumer Disputes Redressal Commission with headquarters at Ahmedabad,

Ms.Jani Jyoti Pareshkumar, shall hold her office as Member of the State Consumer Disputes Redressal Commission, Ahmedabad for a period of five years or up to the age of 67 years whichever is earlier from the date she resumes the charge of her office.

Terms and conditions for the above appointment is as below :-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/ 1098/ 2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) She appointed as Member of a State Commission should ensure that her activity/ personal interest should not come in the way of functioning of the State Commission and should not conflict with the interest of the State Commission, in any manner.

(3) She should keep in mind that it is a full time job and during the working hours of the State Commission, she should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then she should surrender her "Sanad" before the State Bar Council so long as she serves as Member of the State Commission.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/13/CPA/102010/867854/D : In exercise of the powers conferred by clause (b) of section 9 read with sub-section (1) (b), (2) and (3) of section-16 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Dr. Vadalia Kirtikumar Mavjibhai, as the Member of State Consumer Disputes Redressal Commission with headquarters at Ahmedabad,

Dr. Vadalia Kirtikumar Mavjibhai, shall hold his office as Member of the State Consumer Disputes Redressal Commission, Ahmedabad for a period of five years or up to the age of 67 years whichever is earlier from the date he resumes the charge of his office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/ 1098/ 2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) He appointed as Member of a State Commission should ensure that his activity/ personal interest should not come in the way of functioning of the State Commission and should not conflict with the interest of the State Commission, in any manner.

(3) He should keep in mind that it is a full time job and during the working hours of the State Commission, he should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then he should surrender his "Sanad" before the State Bar Council so long as he serves as Member of the State Commission.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/14/CPA/102010/867854/D : In exercise of the powers conferred by clause (b) of section 9 read with sub-section (1) (b), (2) and (3) of section-16 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri Thakkar Kanaiyalal Keshavlal, as the Member of State Consumer Disputes Redressal Commission with headquarters at Ahmedabad,

Shri Thakkar Kanaiyalal Keshavlal, shall hold his office as Member of the State Consumer Disputes Redressal Commission, Ahmedabad for a period of five years or up to the age of 67 years whichever is earlier from the date he resumes the charge of his office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No:CPA/ 1098/ 2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) He appointed as Member of a State Commission should ensure that his activity/ personal interest should not come in the way of functioning of the State Commission and should not conflict with the interest of the State Commission, in any manner.

(3) He should keep in mind that it is a full time job and during the working hours of the State Commission, he should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then he should surrender his "Sanad" before the State Bar Council so long as he serves as Member of the State Commission.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 31st January, 2011.

CONSUMER PROTECTION ACT, 1986

No.GTH/2011/15/CPA/102010/867854/D : In exercise of the powers conferred by clause (b) of section 9 read with sub-section (1) (b), (2) and (3) of section-16 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Ms.Thakar Nandini Kaushal, as the Member of State Consumer Disputes Redressal Commission with headquarters at Ahmedabad,

Ms.Thakar has served as a member of Sabarkantha District Consumer Disputes Redressal Forum for a period of one year eight month and six days, then she has served as a member of Ahmedabad (Rural)Consumer Disputes Redressal forum from Dt.16/7/05 to Dt.15/7/10 i.e. for a period of 5 years. Thus, she has served for a total period of six years eight months and six days.

As per provision of Section-10 and 16 of The Consumer Protection Act, 1986, a member can serve as a member in Consumer forum / Consumer commission for a maximum period of 10 years, hence a period of three years three months and twenty four days is remaining to complete the remaining eligible period of ten years.

Therefore, Ms.Thakar Nandini Kaushal, shall hold her office as Member of the State Consumer Disputes Redressal Commission, Ahmedabad for a period of three years, three month and twenty four days or up to the age of 67 years whichever is earlier from the date she resumes the charge of her office.

Terms and conditions for the above appointment is as below:-

(1) The terms and conditions shall be applicable as decided in the G.R. No : CPA/ 1098/ 2860/D, dated 30/11/2004, G.R. NO:CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

(2) She appointed as Member of a State Commission should ensure that her activity/ personal interest should not come in the way of functioning of the State Commission and should not conflict with the interest of the State Commission, in any manner.

(3) She should keep in mind that it is a full time job and during the working hours of the State Commission, she should not engage in any other work, directly or indirectly.

(4) If the person appointed is a practicing advocate, then she should surrender her "Sanad" before the State Bar Council so long as she serves as Member of the State Commission.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

Government Central Press, Gandhinagar.

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Extra No. 8 REGISTERED NO. G/GNR/2

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Separate paging is given to this part in order that it may be filed as a Separate Compilation.

PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

INDUSTRIES AND MINES DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 1st February, 2011

MINES AND MINERALS (DEVELOPMENT AND REGULATION ACT,1957)

No:GU-2011-(03)-MCR-102011-82-CHH.- Whereas the proposal dated 09/11/2010 received from the officer of Commissioner, Geology and Mining, Gandhinagar, State Government hereby notifies the following **limestone** bearing areas **of Porbandar** in blocks, under proviso in section 11(2) of Mines and Minerals (Development and Regulation) Act,1957 for inviting applications to grant mineral concession for setting up **Cement Unit** in pursuance to the section 11(3) and section 11(5) of the Act as well as the guidelines issued vide Industries and Mines Department's Government Resolution No.MCR-102008-121757-CHH, dated.18/11/2009.

Block No	District	Taluka	Village	Survey No	Type of Land	Area in Hectors	Reserve in Million Tons
1	2	3	4	5	6	7	8
1	Porbandar	Porbandar	Miyani	24/4 A/P, 5/P/1P	Govt.	58.00.00	06.78
2	Porbandar	Porbandar	Chingariya	166/2/ P	Govt.	75.00.00	04.38
3	Porbandar	Porbandar	Ratadi	51/2 P	Govt.	75.00.00	08.77
4	Porbandar	Porbandar	Gorasar	9/4 P, 12	Govt. , Grampanchayat	140.00.00	16.38
5	Porbandar	Porbandar	Pata	133,404,406,411/4 P	Govt. , Grampanchayat	105.00.00	6.14
6	Porbandar	Porbandar	Mocha	144/4 P	Govt.	70.00.00	8.19
Total						523.00.00	50.64

The applicant unit/individual shall submit the mining lease application through the office of the Collector, **Porbandar** in Form-I (under rule 22(1) of The Mineral Concession Rules, 1960), during the office hours from **01/02/2011** to **02/03/2011** All the applications received during this period and the applications received prior to the publication of this notification in respect of the above areas and have not been disposed off, shall be deemed to have been received on the same day for the purpose of assigning priority. All these applicants have also to submit additional information in the checklist prescribed by the Commissioner, Geology and Mining, Gandhinagar. The final grant of mineral concessions will be subject to the guidelines issued vide Industries and Mines Department's Government Resolution No.MCR-102008-121757-CHH, dated 18/11/2009 and submission of required clearances from the Hon.ble Supreme Court of India wherever applicable and the Ministry of Forest and Environment Department of Central and State Government.

By order and in the name of the Governor of Gujarat.

SHRIDEVI SHUKLA,
Officer on Special Duty to Government

Government Central Press, Gandhinagar.

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Extra No. 9 REGISTERED No. G/GNR/2

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

INDUSTRIES AND MINES DEPARTMENT

Notification

Sachivalaya, Gandhinagar. 3rd February, 2011.

Mines and Minerals (Development and Regulation) Act, 1957.

No: GU-2011(04)-MCR-102010-1787(198)-CHH-1 : Whereas the proposal dated 30/10/2010 received from the officer of Commissioner, Geology and Mining, Gandhinagar, State Government hereby notifies the following limestone bearing areas, in blocks, under proviso in section 11(2) of Mines and Minerals (Development and Regulation) Act, 1957 for inviting applications to grant mineral concession in pursuance to the section 11(3) and section 11(5) of the Act as well as the guidelines issued vide Industries and Mines Department's Government Resolution No. MCR-102008-121757-CHH, dated. 18/11/2009.

Block No	District	Taluka	Village	Survey No	Type of Land	Area in Hectors	Total Area in Hectors	Chemical Grade Reserve M.T.	Cement Grade Reserve M.T.	Total Reserve M.T.
1	Junagadh	Sutrapada	Lodhava	661	Pvt	1.5884	291.65.63	11.01	33.03	44.04
2				662	Pvt	1.4670				
3				663	Pvt	1.5378				
4				664	Pvt	1.3248				
5				665	Pvt	0.7386				
6				666	Pvt	4.6338				
7				667	Pvt	1.1129				
8				668	Pvt	2.1952				
9				669	Pvt	1.8110				
10				670	Pvt	0.9004				
11				671	Govt.	0.4452				
12				672	Pvt	0.1518				
13				673	Pvt	0.9409				
14				675	Govt.	112.5543				
15				675	Pvt	15.4684				
16				1160	Pvt	0.4553				
17				1143	Pvt	0.9510				
18				1147	Pvt	0.7790				
19				1234	Pvt	1.0927				
20				1151	Pvt	1.0421				
21				1188	Pvt	0.4047				
22				1158	Pvt	0.7386				
23				715	Pvt	2.5192				
24				716	Pvt	1.1130				
25				717	Pvt	3.1972				
26				718	Pvt	0.9713				
27				719	Pvt	2.7599				

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Block No	District	Taluka	Village	Survey No	Type of Land	Area in Hectors	Total Area in Hectors	Chemical Grade Reserve M.T.	Cement Grade Reserve M.T.	Total Reserve M.T.
28				720	Pvt	0.8600				
29				721	Pvt	0.8397				
30				721	Govt.	76.7693				
31				1137	Govt.	5.8680				
32				1138	Pvt.	7.7195				
33				1 139	Govt.	10.7141				
34				1140	Pvt.	2.2260				
35				1141	Pvt.	2.9745				
36				1142	Govt.	12.7376				
37				1205	Pvt.	0.5261				
38				1202	Pvt.	3.0633				
39				1228	Pvt.	0.6980				
40				1149	Pvt.	0.8600				
41				1146	Pvt.	1.0015				
42				674	Pvt.	1.9020				
1	Junagadh	Sutrapada	Singsar	223	Govt.	25.5560	155.4590	5.86	12.91	18.77
2				365	Pvt.	2.0234				
3				366	Pvt.	1.8919				
4				367	Pvt.	2.1752				
5				368	Pvt.	3.2476				
6				369	Pvt	1.1622				
7				370	Pvt.	1.2031				
8				371	Pvt.	2.3876				
9				372	Pvt.	2.832				
10				373	Pvt.	1.4265				
11				374	Pvt.	6.4346				
12				407	Govt.	93.3818				
13				407	Pvt.	11.7461				
1	Junagadh	Sutrapada	Padruka-A	17	Govt.	2.5789	29.3389	1.10	2.43	3.53
2				43	Govt.	22.9053				
3				64	Govt.	3.8547				
1	Junagadh	Sutrapada	Padruka-B	6	Govt.	12.5554	38.7084	1.46	3.21	4.67
2				7	Pvt.	0.8903				
3				22	Govt.	6.0804				
4				146	Govt	1.8312				
5				147	Pvt.	0.4553				
6				148	Pvt.	0.5059				
7				152	Pvt.	1.1129				
8				154/1	Govt.	10.2285				
9				154/2	Pvt	3.9963				
10				162	Govt.	1.0522				

For conservation and value addition of limestone, leases shall be granted separately i.e. top layer for soda ash and below for cement industries. Soda ash and cement lease holder shall have to mine in consonance. In case of any dispute, Commissioner, Geology and Mining will be the conclusive authority.

The applicant unit/individual shall submit the mining lease application through the office of the Collector, Junagadh in Form-I (under rule 22(1) of The Mineral Concession Rules, 1960), during the office hours from 3.2.2011 to 4.3.2011. All the applications received during this period and the applications received prior to the publication of this notification in respect of the above areas and had not been disposed of, shall be deemed to have been received on the same day for the purpose of assigning priority. All these applicants have also to submit additional information in the checklist prescribed by the Commissioner, Geology and Mining, Gandhinagar vide his letter No.CGM-lease-Min.Policy-08-09/797, dated 1.2.2010. The final grant of mineral concessions will be subject to the guidelines issued vide Industries and Mines Department's Government Resolution No.MCR-102008-121757-CHH, dated 18/11/2009 and provision of section 11(2), 11(3) and 11(5) of the MM(D&R) Act, 1957, the opinion of revenue, forest and technical in this regard and specific conditions in respect of time bound mining in the upper layer of the mining lease area.

By order and in the name of the Governor of Gujarat,

SHRIDEVI SHUKLA,
Officer On Special Duty.

Government Central Press, Gandhinagar.

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Extra No. 10 REGISTERED No. G/GNR/2

सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

Vol. LIIJ WEDNESDAY, FEBRUARY 9, 2011/MAGHA 20, 1932

Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sardar Bhavan, Secretariat, Gandhinagar, 9th February, 2011.

NOTARIES RULES, 1956 :

No: GK/05/2011/NTR/1095/36/F :- In exercise of the powers conferred by rule 4 of the Notaries Rules, 1956 and in supersession of Government Notification, Legal Department No: GK/14/2008/NTR/1095/36/F, dated the 17th March, 2008, the Government of Gujarat hereby designates Shri K. M. LALA, Deputy Secretary to the Government of Gujarat in the Legal Department as the Competent Authority for the purposes of the said Rules.

By order and in the name of the Governor of Gujarat,

O. L. PANDEY,
Secretary to Government.

Government Central Press, Gandhinagar.

Extra No. 11 REGISTERED NO. G/GNR/2

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सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

Vol. LII] MONDAY, FEBRUARY 14, 2011/MAGHA 25, 1932

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

Social Justice & Empowerment Department

Notification

Sachivalaya, Gandhinagar, 14th February, 2011

Juvenile Justice Board (Care and Protection of Children Act, 2000.

No. GH/SH/2/2011/JJA/102008-1640-CHH.--WHEREAS the Constitution has, in several provisions, including clause (3) of article 15, article 21, article 21A, clauses (1) and (2) of article 22, articles 23 and 24, clauses (e) and (f) of article 39, article 39 A, articles 45, 47 and 51 A (k), impose on the State a primary responsibility of ensuring that all the needs of children are met and that their basic rights are fully protected;

AND WHEREAS, the Convention on the Rights of the Child adopted by the General Assembly of the United Nations on the 20th November, 1989 and ratified by India on 11th December 1992, emphasizes conferment of rights on children, and reintegration of juveniles and care and protection of vulnerable children, with a view to furthering their right to survival, development, protection and participation;

AND WHEREAS, the United Nations Standard Minimum Rules for the Administration of Juvenile Justice, 1985 (the Beijing Rules) and the United Nations Rules for the Protection of Juveniles Deprived of their Liberty (1990) set the minimum standard to be adhered to in the administration of juvenile justice in respect of juveniles in conflict with law;

AND WHEREAS, the United Nations Guidelines for the Prevention of Juvenile Delinquency (Riyadh Guidelines) and all other relevant international instruments focus on the prevention of juvenile delinquency and provide guidelines for it;

AND WHEREAS, to give effect to the provisions of the Constitution and relevant international instruments , the Juvenile Justice (Care and Protection of Children) Act, 2000 (56 of 2000) as amended by the Juvenile Justice (Care and Protection of Children) Amendment Act, 2006 (33 of 2006) was enacted to consolidate and amend the law relating to juveniles in conflict with law and children in need of care and protection, by providing for proper care, protection and treatment by catering to their developmental needs, and by adopting a child friendly approach in the adjudication and disposition of matters in the best interest of children and for their ultimate rehabilitation and for matters connected therewith or incidental thereto, through institutional as well as non-institutional measures enumerated under the said Act;

NOW, THEREFORE, with a view to provide for better implementation and administration of the provisions of the said Act in its true spirit and substance, the State Government in pursuance of the above said provisions and in exercise of the powers conferred by the provision to sub-section (1) of section 68 of the Juvenile Justice (Care and Protection of Children) Act, 2000 (56 of 2000) and in Super- session of all the rules made in this behalf hereby makes the following rules and lays down the fundamental principles to be applied in administration of juvenile justice, namely:-

CHAPTER – I

PRELIMINARY

1. Short title and commencement.-

(1) These rules may be called the Gujarat Juvenile Justice (Care and Protection of Children) Rules, 2011.

(2) They shall come into force on the date of their publication in the *Official Gazette.*

2. Definition.-

In these rules, unless the context otherwise requires :

(a) "abandoned" means an unaccompanied and deserted child who is declared abandoned by the Committee after due inquiry;

(b) "*Act*" means the Juvenile Justice (Care and Protection of Children) Act, 2000 (56 of 2000)

(c) "*best interest of the child*" means a decision taken to ensure the physical, emotional, intellectual, social and moral development of juvenile or child;

(d) "*child friendly*" means any process and interpretation, attitude, environment and treatment, that is humane, considerate and in the best interest of the child;

(e) "*child in need of care and protection*" means with reference to section 2 (d) (i) of the Act and also includes -

(i) A child who is affected, temporarily or permanently, by family, social, cultural, political and civil conflicts. This category *interalia* includes a child who is a victim of untouchables, social and religious boycott; and

(ii) A child whose parent(s) or guardian is unable to provide him, temporarily or otherwise, with basic needs including education and attention, because of the nature of their occupation and means of livelihood or of being affected by developmental work, enforcement of legislation, acquisition of resources such as land belonging to his family;

(f) "*community service*" implies service rendered to the society by juveniles in conflict with law in lieu of other judicial remedies and penalties, which is not degrading and dehumanizing. Examples of this may include:

(i) cleaning a park, school, or library;

(ii) getting involved with Habitat for Humanity;

(iii) serving the elderly in nursing homes.

(iv) helping out a local fire or traffic police;

(v) helping out at a local hospital or nursing home; and

(vi) serving disabled children,

(g) "*competent authority*" means Juvenile Justice Board in relation to a Juvenile in conflict with law and Child Welfare Committee in relation to a child in need of care and protection;

(h) "*detention*" in case of juvenile in conflict with law means 'protective custody' in line with the principles of restorative justice;

(i) "*Form*" means the form annexed to these rules;

(j) "*individual care plan*" is a comprehensive development plan for a juvenile or child based on age specific and gender specific needs and the case history of the juvenile or child, prepared in consultation with the juvenile or child, in order to restore the juvenile's or child's self-esteem, dignity and self-worth and nurture him into a responsible citizen and accordingly the plan shall address the following needs of a juvenile or a child:

(i) Health needs;

(ii) Emotional and psychological needs;

(iii) Educational and training needs;

(iv) Leisure, creativity and play;

(v) Attachments and relationships;

(vi) Protection from all kinds of abuse, neglect and maltreatment;

(vii) Social mainstreaming; and

(viii) Follow-up, post release and restoration;

(k) "*institution*" means an observation home, or a special home, or a children's home or a shelter home set up, certified or recognized and registered under sections 8, 9, 34, sub-section (3) of section 34 and section 37 of the Act respectively;

(l) "*officer-in-charge*" or such other nomenclature as issued by the State Government, (such as superintendent) means a person appointed for the control and management of the institution;

(m) "*orphan*" means a child who is without parents or willing and capable legal or natural guardian;

(n) "*place of safety*" means any institution set up and recognized under sub-section (3) of section 12 and sub-section (1) of section 16 of the Act for juvenile in conflict with law or children;

(o) "*recognized*" means a person found fit by the competent authority or, an institution found fit by the State Government on the recommendation of the competent authority as per clauses (h) and (i) of section (2) of the Act; or, recognition of an institution or agency or voluntary organization by the State Government to operate as a children's home, observation home and special home; or a shelter home, specialized adoption agency or after care organization under sub-section (1) of section 37, sub-section (4) of section 41 and clause (a) of section 44 of the Act;

(p) "*registered*" means all institutions or agencies or voluntary organisations providing residential care to children in need of care and protection registered under sub-section (3) of section 34;

(q) "*Rules*" means the rules framed under the Act;

(r) "*Section*" means section of the Act;

(s) "*State Government*" means the Government of Gujarat;

(t) "*street and working children*" means children without ostensible means of livelihood, care, protection and support in accordance with the provisions laid down under clause (d) (1) of section 2 of the Act;

(u) "*surrendered child*" means a child, who in the opinion of the Committee, is relinquished on account of physical, emotional and social factors beyond the control of the parent or guardian;

(v) all words and expressions defined in the Act and used, but not defined in these rules, shall have the same meaning as assigned to them in the Act,

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CHAPTER – II

FUNDAMENTAL PRINCIPLES OF JUVENILE JUSTICE AND PROTECTION OF CHILDREN

3. Fundamental principles to be followed in administration of these rules.-

(1) The State Government, Juvenile Justice Board, the Child Welfare Committee or other competent authorities or agencies, as the case may be, while implementing the provisions of these rules shall abide and be guided by the principles, specified in sub-rule (2).

(2) The following principles shall, *interalia,* be fundamental to the application, interpretation and implementation of the Act and the rules made thereunder:

I. Principle of presumption of innocence:

(a) A juvenile or child or juvenile in conflict with law is presumed to be innocent of any malafide or criminal intent up to the age of eighteen years.

(b) The juvenile's or juvenile's in conflict with law or child's right to presumption of innocence shall be respected throughout the process of justice and protection, from the initial contact to alternative care, including aftercare.

(c) Any unlawful conduct of a juvenile or a child or a juvenile in conflict with law which is done for survival, or is due to environmental or situational factors or is done under control of adults, or peer groups, is ought to be covered by the principles of innocence.

(d) The basic components of presumption of innocence are:

(i) Age of innocence

Age of innocence is the age below which a juvenile or child or a juvenile in conflict with law cannot be subjected to the criminal justice system. The Beijing Rule 4(1) clearly lays down that "the beginning of the age of criminal responsibility shall not be fixed at too low an age level bearing in mind the facts of mental and intellectual maturity". In consonance with this principle, the mental and intellectual maturity of juvenile or child or a juvenile in conflict with law below eighteen years is considered insufficient through out the world.

(ii) Procedural protection of innocence:

All procedural safeguards that are guaranteed by the Constitution and other statutes to the adults and that go in to strengthen the juvenile's or child's right to presumption of innocence shall be guaranteed to juveniles or the children or juveniles in conflict with law.

(iii) Provisions of Legal aid and Guardian Ad Litem:

Juveniles in conflict with law have a right to be informed about the accusations against them and a right to be legally represented. Provisions must be made for guardian ad litem, legal aid and other such assistance through legal services at State expense. This shall also include such juveniles' right to present his case before the competent authority on his own.

II Principle of dignity and worth:

(a) Treatment that is consistent with the child's sense of dignity and worth is a fundamental principle of juvenile justice. This principle reflects the fundamental human right enshrined in Article 1 of the Universal Declaration of Human Rights that all human beings are born free and equal in dignity and rights. Respect of dignity includes not being humiliated, personal identity, boundaries and space being respected, not being labeled and stigmatized, being offered information and choices and not being blamed for their acts.

(b) The juvenile's or child's right to dignity and worth has to be respected and protected throughout the entire process of dealing with the child from the first contact with law enforcement agencies to the implementation of all measures for dealing with the child.

III. Principle of Right to be heard:

Every child's right to express his views freely in all matters affecting his interest shall be fully respected through every stage in the process of juvenile justice. Children's right to be heard shall include creation of developmentally appropriate tools and processes of interacting with the child, promoting children's active involvement in decisions regarding their own lives and providing opportunities for discussion and debate.

IV. Principle of Best Interest:

(a) In all decisions taken within the context of administration of juvenile justice, the principle of best interest of the juvenile or the juvenile in conflict with law or child shall be the primary consideration.

(b) The principle of best interest of the juvenile or juvenile in conflict with law or child shall mean for instance that the traditional objectives of criminal justice, retribution and repression, must give way to rehabilitative and restorative objectives of juvenile justice.

(c) This principle seeks to ensure physical, emotional, intellectual, social and moral development of a juvenile in conflict with law or child so as to ensure

the safety, well being and permanence for each child and thus enable each child to survive and reach his or her full potential.

V. Principle of family responsibility:

(a) The primary responsibility of bringing up children, providing care, support and protection shall be with the biological parents. However, in exceptional situations, this responsibility may be bestowed on willing adoptive or foster parents.

(b) All decision making for the child should involve the family of origin unless it is not in the best interest of the child to do so.

(c) The family - biological, adoptive or foster (in that order), must be held responsible and provide necessary care, support and protection to the juvenile or child under their care and custody under the Act, unless the best interest measures or mandates dictate otherwise.

VI. Principle of Safety (no harm, no abuse, no neglect, no exploitation and no maltreatment):

(a) At all stages, from the initial contact till such time he remains in contact with the care and protection system, and thereafter, the juvenile or child or juvenile in conflict with law shall not be subjected to any harm, abuse, neglect, maltreatment, corporal punishment or solitary or otherwise any confinement in jails and extreme care shall be taken to avoid any harm to the sensitivity of the juvenile or the child.

(b) The state has a greater responsibility for ensuring safety of every child in its care and protection, without resorting to restrictive measures and processes in the name of care and protection.

VII. Positive measures:

(a) Provisions must be made to enable positive measures that involve the full mobilization of all possible resources, including the family, volunteers and other community groups, as well as schools and other mainstream community institutions or processes, for the purpose of promoting the well-being of the juvenile or child through individual care plans carefully worked out.

(b) The positive measures shall aim at reducing vulnerabilities and reducing the need for intervention under the law, as well as effective, fair and humane dealing of the juvenile or child.

(c) The positive measures shall include avenues for health, education, relationships, livelihoods, leisure, creativity and play.

(d) Such positive measures must facilitate the development of identity for the child and provide them with an inclusive and enabling environment.

VIII. Principle of non-stigmatizing semantics, decisions and actions:

The non-stigmatizing semantics of the Act must be strictly adhered to, and the use of adversarial or accusatory words, such as, arrest, remand, accused, charge sheet, trial, prosecution, warrant, summons, conviction, inmate, delinquent, neglected, custody or jail is prohibited in the processes pertaining to the child or juvenile in conflict with law under the Act.

IX. Principle of non-waiver of rights:

(a) No waiver of rights of the child or juvenile in conflict with law, whether by himself or the competent authority or anyone acting or claiming to act on behalf of the juvenile or child, is either permissible or valid.

(b) Non-exercise of a fundamental right does not amount to waiver.

X. Principle of equality and non-discrimination:

(a) There shall be no discrimination against a child or juvenile in conflict with law on the basis of age, sex, place of birth, disability, health, status, race, ethnicity, religion, caste, cultural practices, work, activity or behaviour of the juvenile or child or that of his parents or guardians, or the civil and political status of the juvenile or child.

(b) Equality of access, equality of opportunity, equality in treatment under the Act shall be guaranteed to every child or juvenile in conflict with law.

XI. Principle of right to privacy and confidentiality:

The juvenile's or child's right to privacy and confidentiality shall be protected by all means and through all the stages of the proceedings and care and protection processes.

XII. Principle of last resort:

Institutionalization of a child or juvenile in conflict with law shall be a step of the last resort after reasonable inquiry and that too for the minimum possible duration.

XIII. Principle of repatriation and restoration:

(a) Every juvenile or child or juvenile in conflict with law has the right to be re-united with his family and restored back to the same socio-economic and cultural status that such juvenile or child enjoyed before coming within the purview of the Act or becoming vulnerable to any form of neglect, abuse or exploitation.

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(b) Any juvenile or child, who has lost contact with his family, shall be eligible for protection under the Act and shall be repatriated and restored, at the earliest, to his family, unless such repatriation and restoration is likely to be against the best interest of the juvenile or the child.

XIV. Principle of Fresh Start:

(a) The principle of fresh start promotes new beginning for the child or juvenile in conflict with law by ensuring erasure of his past records.

(b) The State shall seek to promote measures for dealing with children alleged or recognized as having impinged the penal law, without resorting to judicial proceedings.

CHAPTER - III

JUVENILE IN CONFLICT WITH LAW

4. Juvenile Justice Boards.-

There shall be one or more Juvenile Justice Boards in every district, which shall be constituted by the State Government as per section 4 of the Act.

5. Composition of the Juvenile Justice Board.-

(1) The Board shall consist of a Metropolitan Magistrate or a Judicial Magistrate of the first class, as the case may be, and two social workers of whom at least one shall be a woman, forming a bench:

Provided that the Principal Magistrate of the Board shall review the pendency of cases before the Board and take such steps, as may be necessary in the expeditious disposal of the cases.

(2) Every such bench shall have the powers conferred by the Code of Criminal Procedure 1973 (2 of 1974).

(3) (i) A Magistrate with special knowledge or training in child psychology or child welfare shall be designated as the Principal Magistrate of the Board.

(ii) In case the Principal Magistrate with such special knowledge or training is not available, then, the State Government shall provide for such short-term training in child psychology or child welfare as it considers necessary.

(4) The two social workers, of whom at least one shall be a woman, shall be appointed by the State Government on the recommendation of the Selection Committee set up under rule 92 of these rules.

(5) The State Government shall provide for such training and orientation in child psychology, child welfare, child rights, national and international standards for juvenile justice to all members of the Board as it considers necessary, in accordance with the Integrated Child Protection Scheme of the Central Government.

6. Tenure of the Board.-

(1) The Board shall have a tenure of three years and the appointment of members shall be co-terminus with the tenure of the Board.

(2) A social worker being a member of the Board shall be eligible for appointment for a maximum of two consecutive terms.

(3) Any extension of the tenure of members of the Board shall be on the basis of their performance appraisal by the District Child Protection Unit of the State Government and on the recommendation of a Selection Committee constituted for the

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purpose and the performance appraisal of members of the Board shall necessarily assess their participation in the proceedings of the Board and contribution in case disposal

(4) A member may resign any time, by giving one month's advance notice in writing or may be removed from his office as provided in sub-section (5) of section 4 of the Act.

(5) Any vacancy in the Board may be filled by appointment of another person from the panel of names prepared by the Selection Committee, and shall hold office for the remaining term of the Board.

7. Qualifications for Members of the Board.-

(1) The social worker to be appointed as a member of the Board shall be a person not less than 35 years of age, who has a post-graduate degree in social work, health, education, psychology, child development or any other social science discipline and has been actively involved and engaged in planning, implementing and administering measures relating to child welfare for at least seven years.

(2) No person shall be considered for selection as a Member of the Board, if he, -

(a) has been convicted under any law;

(b) have ever indulged in child abuse or employment of child labour or any other human rights violations or immoral act;

(c) is holding such other occupation that does not allow him to give necessary time and attention to the work of the Board;

(d) does not fulfill the qualification and experience prescribed in the Act and the rules made thereunder and in such a case the Selection Committee shall after due inquiry and on establishment of such fact, reject his application and recommend the name of the next person from the list of names prepared for filling the vacancies.

8. Sitting and conveyance allowance.-

The Social worker members of the Board shall be paid such travel and sitting allowance as the State Government may determine from time to time, but it shall not be less than rupees five hundred per sitting.

9. Sittings of the Board.-

(1) The Board shall hold its sittings in the premises of an Observation Home or, at a place in proximity to the Observation Home or, at a suitable premise in any institution run under the Act, and in no circumstances shall the Board operate from within any court premises.

(2) The premises where the Board holds its sittings shall be child-friendly and shall not look like a court room in any manner whatsoever; for example, the Board shall not sit on a raised platform and the sitting arrangement shall be uniform, and there shall be no witness boxes.

(3) The Board shall meet on two working days of a week, unless the case pendency is more in a particular district and concerned authority issues an order in this regard.

(4) A minimum of three-fourth attendance of the Chairperson and Members of the Board is necessary in a year.

(5) Every member of the Board shall attend a minimum of three hours per sitting.

10. Functions of the Board.-

The Board shall perform the following functions to achieve the objectives of the Act, namely:-

(a) adjudicate and dispose cases of juveniles in conflict with law;

(b) take cognizance of crimes committed under section 23 to 28 of the Act;

(c) monitoring institutions for juveniles in conflict with law and seeking compliance from them in cases of any noticeable lapses and improvement based on suggestions of the Board;

(d) deal with non-compliance on the part of concerned government functionaries or functionaries of voluntary organizations, as the case may be, in accordance with due process of law;

(e) pass necessary direction to the district authority and police to create or provide necessary infrastructure or facilities so that minimum standards of justice and treatment are maintained in the spirit of the Act;

(f) maintain liaison with the Committee in respect of cases needing care and protection;

(g) liaison with Boards in other districts to facilitate speedy inquiry and disposal of cases through due process of law;

(h) take suitable action for dealing with unforeseen situations that may arise in the implementation of the Act and remove such difficulties in the best interest of the juvenile;

(i) send quarterly information about juveniles in conflict with law produced before them, to the District, State Child Protection Unit, the State Government and also to the Chief Judicial Magistrate or Chief Metropolitan

Magistrate ; as the case may be for review under sub-section (2) of section 14 of the Act;

(j) any other function assigned by the State Government from time to time relating with juveniles in conflict with law.

11. Pre and Post-Production action of police and other agencies.-

(1) As soon as a juvenile alleged to be in conflict with law is apprehended by the police, the concerned police officer shall inform:

(a) the designated Juvenile or the Child Welfare Officer in the nearest police station to take charge of the matter;

(b) the parents or guardian of the juvenile alleged to be in conflict with law about the apprehension of the juvenile, about the address of the Board where the juvenile will be produced and the date and time when the parents or guardian need to be present before the Board;

(c) the concerned probation officer, of such apprehension to enable him to obtain information regarding social background of the juvenile and other material circumstances likely to be of assistance to the Board for conducting the inquiry.

(2) Soon after apprehension, the juvenile shall be placed under the charge of the Juvenile or Child Welfare Officer from the nearest police station, who shall produce the juvenile before the Board within twenty four hours as per sub-section (1) of section 10 of the Act and where such Juvenile or the Child Welfare Officer has not been designated as per provisions laid down under sub-section (2) of section 63 of the Act or is not available for some official reasons, the police officer who had apprehended the juvenile shall produce him before the Board.

(3) The police apprehending a juvenile in conflict with law shall in no case send the juvenile in lock-up or delay his charge being transferred to the Juvenile or the Child Welfare Officer from the nearest police station, if such an officer has been designated.

(4) A list of all designated Juvenile or the Child Welfare Officers in a district and members of Special Juvenile Police Unit with contact details shall be prominently displayed in every police station.

(5) For gathering the best available information it shall be incumbent upon the Police or the Juvenile or the Child Welfare Officer from the nearest police station, to contact the parents or guardians of the juvenile and also apprise them of the juvenile's law breaking behaviour.

(6) The police or the Juvenile welfare officer or the Child Welfare Officer from the nearest police station, shall also record the social background of the juvenile and circumstances of apprehension and offence alleged to have been committed in the case diary of each juvenile, which shall be forwarded to the Board forthwith.

(7) The police or the Juvenile or the Child Welfare Officer from the nearest police station, shall exercise the power of apprehending the juvenile only in cases of his alleged involvement in serious offences (entailing a punishment of more than 7 years imprisonment for adults).

(8) In such cases where apprehension apparently seems to be in the interest of the juvenile, the police or the Juvenile or the Child Welfare Officer from the nearest police station, shall rather treat the juvenile as a child in need of care and protection and produce him before the Board, clearly explaining the juvenile's need for care and protection in its report and seek appropriate orders from the Board under rule 13 (1) (b) of these rules.

(9) For all other cases involving offences of non-serious nature (entailing a punishment of less than 7 years imprisonment for adults) and cases where apprehension is not necessary in the interest of the juvenile, the police or the Juvenile or the Child Welfare Officer from the nearest police station, shall intimate the parents or guardian of the juvenile about forwarding the information regarding nature of offence alleged to be committed by their child or ward along with his socio-economic background to the Board, which shall have the power to call the juvenile for subsequent hearings.

(10) In case the Board is not sitting, the juvenile in conflict with law shall be produced before the single member of the Board as per the provisions laid down under the sub-section (2) of section 5 of the Act.

(11) In dealing with cases of juveniles in conflict with law the Police or the Juvenile or the Child Welfare Officer from the nearest police station, shall not be required to register an FIR or file a charge-sheet, except where the offence alleged to have been committed by the juvenile is of a serious nature such as rape, murder or when such offence is alleged to have been committed jointly with adults; instead, in matters involving simple offences, the Police or the Juvenile or the Child Welfare Officer from the nearest police station shall record information regarding the offence alleged to have been committed by the juvenile in the general daily diary followed by a report containing social background of the juvenile and circumstances of apprehension and the alleged offence and forward it to the Board before the first hearing.

(12) The State Government shall recognize only such voluntary organizations that are in a position to provide the services of probation, counseling, case work, a

safe place and also associate with the Police or the Juvenile or the Child Welfare Officer from the Special Juvenile Police Unit, and have the capacity, facilities and expertise to do so as protection agencies that may assist the Police or the Juvenile or the Child Welfare Officer from the police at the time of apprehension, in preparation of the report containing social background of the juvenile and circumstances of apprehension and the alleged offence, in taking charge of the juvenile until production before the Board, and in actual production of the juvenile before the Board within twenty-four hours.

(13) The Police or the Juvenile or the Child Welfare Officer from the Special Juvenile Police Unit, or the recognized voluntary organization shall be responsible for the safety and provision of food and basic amenities to the juveniles apprehended or kept under their charge during the period such juveniles are with them.

(14) When a juvenile is produced before an individual member of the Board, and an order obtained, such order shall need ratification by the Board in its next meeting.

12. Procedure to be followed in determination of Age.-

(1) In every case concerning a child or a juvenile in conflict with law, the court or the Board or as the case may be ,the Committee referred to in rule 19 of these rules shall determine the age of such juvenile or child or a juvenile in conflict with law within a period of thirty days from the date of making of the application for that purpose.

(2) The court or the Board or as the case may be the Committee shall decide the juvenility or otherwise of the juvenile or the child or as the case may be the juvenile in conflict with law, prima facie on the basis of physical appearance or documents, if available, and send him to the observation home or in jail.

(3) In every case concerning a child or juvenile in conflict with law, the age determination inquiry shall be conducted by the court or the Board or, as the case may be, the Committee by seeking evidence by obtaining –

(a) (i) the matriculation or equivalent certificates, if available; and in the absence whereof;

(ii) the date of birth certificate from the school (other than a play school) first attended; and in the absence whereof;

(iii) the birth certificate given by a corporation or a municipal authority or a panchayat;

(b) and only in the absence of either (i), (ii) or (iii) of clause (a) above, the medical opinion will be sought from a duly constituted Medical Board, which will declare the age of the juvenile or child. In case exact assessment of the age cannot be done, the Court or the Board or, as the case may be, the

Committee, for the reasons to be recorded by them, may, if considered necessary, give benefit to the child or juvenile by considering his/her age on lower side within the margin of one year.

and, while passing orders in such case shall, after taking into consideration such evidence as may be available, or the medical opinion, as the case may be, record a finding in respect of his age and either of the evidence specified in any of the clauses (a)(i), (ii), (iii) or in the absence whereof, clause (b) shall be the conclusive proof of the age as regards such child or the juvenile in conflict with law.

(4) If the age of a juvenile or child or the juvenile in conflict with law is found to be below 18 years on the date of offence, on the basis of any of the conclusive proof specified in sub-rule (3), the court or the Board or as the case may be, the Committee shall in writing pass an order stating the age and declaring the status of juvenility or otherwise, for the purpose of the Act and these rules and a copy of the order shall be given to such juvenile or the person concerned.

(5) Save and except where, further inquiry or otherwise is required, *inter alia*, in terms of section 7A, section 64 of the Act and these rules, no further inquiry shall be conducted by the court or the Board after examining and obtaining the certificate or any other documentary proof referred to in sub-rule (3) of this rule.

(6) The provisions contained in this rule shall also apply to those disposed off cases, where the status of juvenility has not been determined in accordance with the provisions contained in sub rule (3) and the Act, requiring dispensation of the sentence under the Act for passing appropriate order in the interest of the juvenile in conflict with law.

13. Post-production processes by the Board.-

(1) On production of the juvenile before the Board, the report containing social background of the juvenile and circumstances of apprehension and offence alleged to have been committed provided by the officers, individuals, agencies producing the juvenile shall be reviewed by the Board, and the Board shall pass the following order in the first summary inquiry on the same day, namely:-

(a) dispose off the case, if the evidence of his conflict with law appears to be unfounded or where the juvenile is involved in trivial law breaking;

(b) transfer to the Committee, matters concerning juveniles clearly stated to be in need of care and protection in the police report submitted to the Board at the time of production of the juvenile;

(c) release the juvenile in the supervision or custody of fit persons or fit institutions or probation officers as the case may be, through an order in

Form I, with a direction to appear or present a juvenile for an inquiry on a next date;

(d) detain the juvenile in an Observation Home or fit institution pending inquiry, only in cases of juvenile's involvement in serious offences as per an order in **Form II**;

(e) in all cases of release pending inquiry, the Board shall notify the next date of hearing, not later than 15 days of the first summary enquiry and also seek social investigation report from the concerned Probation Officer through an order in **Form III**;

(2) The Board shall take the following steps to ensure fair and speedy inquiry, namely:-

(a) at the time of initiating the inquiry, the Board shall satisfy itself that the juvenile in conflict with law has not been subjected to any ill-treatment by the police or by any other person, including a lawyer or probation officer and take corrective steps in case of such ill-treatment;

(b) in all cases under the Act the proceedings shall be conducted in as simple manner as possible and care shall be taken to ensure that the juvenile, against whom the proceedings have been instituted, is given child-friendly atmosphere during the proceedings;

(c) every juvenile brought before the Board shall be given the opportunity to be heard and participate in his inquiry;

(d) cases of petty offences, if not disposed off by the Special Juvenile Police Unit or at the police station itself, may be disposed off by the Board through summary proceedings or inquiry, while in cases of heinous offences entailing punishment of 7 years or more, due process of inquiry in detail may follow;

(e) even in cases of inquiry pertaining to serious offences the Board shall follow the procedure of trial in summons cases.

(3) When witnesses are produced for examination in inquiry relating to a juvenile in conflict with law, the Board shall keep in mind that the inquiry is not to be conducted in the spirit of strict adversarial proceedings and it shall use the powers conferred by section 165 of the Indian Evidence Act, 1872 (1 of 1872) so as to question the juvenile and proceed with the presumptions that favour the juvenile's right to be restored.

(4) While examining a juvenile in conflict with law and recording his statement, the Board shall address the juvenile in a child-friendly manner in order to put the juvenile at ease and to encourage him to state the facts and circumstances without any

fear, not only in respect of the offence of which the juvenile is accused, but also in respect of the home and social surroundings and the influence to which the juvenile might have been subjected.

(5) The Board may take into account the report of the police containing circumstances of apprehension and offence alleged to have been committed and the social investigation report in **Form IV** prepared by the Probation officer or the voluntary organization on the orders of the Board as per **Form III**, along with the evidence produced by the parties for arriving at a conclusion about the juvenile.

(6) Every inquiry by the Board shall be completed within a period of four months after the first summary inquiry and only in exceptional cases involving trans-national criminality, large number of accused and inordinate delay in production of witnesses, the period of inquiry may be extended by two months on recording of reasons by the Board.

(7) In all other cases except where the nature of alleged offence is serious, delay beyond four to six months shall lead to the termination of the proceedings.

(8) Where the proceedings are delayed beyond six months on account of serious nature of the offence alleged to have been committed by the juvenile, the Board shall send a periodic report of the case to the Chief Judicial Magistrate or Chief Metropolitan Magistrate stating the reason for delay as well as steps being taken to expedite the matter.

14. Legal Aid.-

(1) The proceedings before the Board shall be conducted in non adversarial environment, but with due regard to all the due process guarantees such as right to counsel and free legal aid.

(2) The Board shall ensure that the Legal Officer in the District Child Protection Unit and the State Legal Aid Services Authority shall extend free legal services to all the juvenile in conflict with law.

(3) The Legal Officer in the District Child Protection Unit and the State Legal Aid Services Authority shall be under an obligation to provide legal services sought by the Board.

(4) In the event of shortfall in the State Legal Aid Services support, the Board shall be responsible for seeking legal services from recognized voluntary legal services organisations or the university legal services clinics.

(5) The Board may also deploy the services of the student legal services volunteers and non-governmental organisation volunteers in para-legal tasks such as contacting the parents of juveniles in conflict with law and gathering relevant social and rehabilitative information about the juveniles.

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15. Completion of Inquiry and Dispositional Alternatives.-

(1) The Board shall complete every inquiry within the stipulated time of four months and on recording a finding about juvenile's involvement in the alleged offence, pass one of the seven dispositional orders enumerated in section 15 of the Act.

(2) Before passing an order, the Board shall obtain a social investigation report prepared by the probation officer or by a recognized voluntary organization ordered to do so by the Board, and take the findings of the report into account.

(3) All dispositional orders passed by the Board shall necessarily include an individual care plan for the concerned juvenile in conflict with law, prepared by a probation officer or voluntary organization on the basis of interaction with the juvenile and his family where possible.

(4) Where the Board decides to release the juvenile after advice and admonition or after participation in group counseling or orders him to perform community service, necessary direction may also be made by the Board to the District or State Child Protection Unit or the State Government for arranging such individual counseling, group counseling and community service.

(5) Where the Board decides to release the juvenile in conflict with law on probation and place him under the care of the parent or guardian or fit person, the person in whose custody the juvenile is released may be required to submit a written undertaking in **Formd-V** for the good behaviour and well-being of the juvenile for a maximum period of three years.

(6) The Board may order release of a juvenile in conflict with law on execution of a personal bond without surety in **FormVI**.

(7) In the event of placement of a juvenile in conflict with law in care of a fit institution or special home, the Board shall keep in mind that the fit institution or special home is located nearest to the place of residence of the juvenile's parent or guardian.

(8) The Board, where it releases a juvenile in conflict with law on probation and places him under the care of parent or guardian or fit person or where the juvenile is released on probation and placed under the care of fit institution, may order that the juvenile be placed under the supervision of a probation officer. The period of supervision shall be a maximum of three years.

(9) Where the Board decides that a juvenile in conflict with law ought to be treated as a child in need of care and protection, it shall make necessary orders for production of such juvenile before the nearest Committee for suitable care, protection and rehabilitation.

(10) Where it appears to the Board that the juvenile in conflict with law has not complied with probation conditions, it may order the juvenile to be sent for detention in a special home.

(11) Where a juvenile in conflict with law who has attained the age of sixteen years and the offence committed by him is of such a serious nature that in the satisfaction of the Board, it is neither in the interest of the juvenile himself nor in the interest of other juveniles of the special home, the Board may order the juvenile to be kept in a place of safety and in a manner considered most appropriate by it.

(12) The State Government shall make arrangement for complying with the detention of special category of juveniles in conflict with law in place of safety other than the special home.

(13) In no case the period of detention shall exceed beyond the maximum period provided in clause (g) of sub-section (1) of section 15 of the Act.

16. Institutions for juveniles in conflict with law.-

(1) The State Government or the voluntary organisation recognised by the State Government shall set up separate observation homes or special homes for boys and girls.

(2) The observation homes or special homes shall set up separate residential facilities for boys and girls up to 12 years, 13-15 years and 16 years and above.

(3) Every institution shall keep a copy of the Act, and the State rules for use by both staff, juveniles and children residing therein.

(4) The State Governments in collaboration with civil society shall develop and make available simplified and child friendly versions of the Act and the rules in regional languages.

(5) All facilities and services for juveniles in conflict with law shall be made available and maintained as per the provisions of the Act and the State rules.

17. Release.-

(1) The Officer-in-charge shall maintain a roster of the cases of juveniles in conflict with law to be released on the expiry of the period of stay as ordered by the Board.

(2) Each case shall be placed before the Management Committee set up under rule 56 of these rules by the concerned probation officer or child welfare officer or case worker for ensuring proper release and social mainstreaming of the juvenile post-release.

(3) The release shall be as per the pre-release and post-release plan prepared under the individual care plan and reviewed from time to time by the management

committee set up under rule 56 of these rules and in all cases of release, necessary action and preparation shall be initiated well before the time of release and shall include preparation for post-release follow-up.

(4) The timely information of the release of a juvenile and of the exact date of release shall be given to the parent or guardian and the parent or guardian shall be invited to come to the institution to take charge of the juvenile on that date.

(5) If necessary, the actual expenses of the parent's or guardian's journey both ways and of the juvenile's journey from the institution shall be paid to the parent or guardian by the Officer-in-charge at the time of the release of the juvenile.

(6) If the parent or guardian, as the case may be, fails to come and take charge of the juvenile on the appointed date, the juvenile shall be taken by the escort of the institution; and in case of a girl, she shall be escorted by a female escort.

(7) At the time of release or discharge, a juvenile shall be provided with a set of summer or winter clothing and essential toiletries, if the Officer-in-charge considers it necessary.

(8) If the juvenile has no parent or guardian, he may be sent to an aftercare organization, or in the event of his employment, to the person who has undertaken to employ the juvenile.

(9) The Officer-in-charge of a girls' institution may, subject to the consent of the girl and the approval of the competent authority, help the girl with her social re-integration by way of sending a girl above the age of eighteen years to an after care programme or, helping her with some vocation or gainful employment or, helping her settle into family life according to the procedure laid down by the competent authority from time to time.

(10) The Officer-in-Charge shall order the discharge in **FormVII** of any juvenile whose detention period has come to an end and inform the competent authority within seven days of the action taken and if the date of release falls on a Sunday or a public holiday, the juvenile may be discharged on the preceding day with an entry to that effect being made in the register of discharge.

(11) The Officer-in-charge shall in appropriate cases, order the payment of subsistence money, at such rates as may be fixed from time to time, by the State or the District Child Protection Unit or the State Government, and the railway or road, or both, fares, as the case may be.

(12) In deserving cases, the Officer-in-charge may provide the juvenile with such small tools, as may be necessary, to start a work or business subject to such maximum cost as may be fixed by the institution which shall also form part of the post-release plan.

(13) Where a girl has no place to go after release and requests for stay in the institution after the period of her stay is over, the Officer-in-charge may, subject to the approval of the competent authority, allow her stay till the time some other suitable arrangements are made.

18. Procedure to be followed in respect of sections 21, 22, 23, 24, 25 and 26 of the Act.-

(1) In the event of violation of provisions laid down under section 21 of the Act,-

(a) the Board shall take cognizance of such violation by print or electronic media and shall initiate necessary inquiry and pass appropriate orders as per provisions contained in sub-section (2) of section 21 of the Act; and

(b) where the National or the State Commission for Protection of Child Rights takes *suo-motu* cognizance of violation under section 21 of the Act, it shall inform the District or the State Child Protection Unit of the concerned district and the State directing them to initiate necessary action through the Board.

(2) In the event of an escape of a juvenile in conflict with law or a child, the following action shall be taken within twenty-four hours,-

(a) the Officer-in-Charge of any institution shall immediately send a report to the area Police Station or Special Juvenile Police Unit along with the details and description of the juvenile or child, with identification marks and a photograph, with a copy to the Board, District Child Protection Unit and other authorities concerned;

(b) the Officer-in--charge of institutions other than shelter homes or drop-in-centers shall send the guards or concerned staff in search of the juvenile, at places like railway stations, bus stands and other places where the juvenile is likely to go;

(c) the parents or guardians shall be informed immediately about such escape; and

(d) the Officer-in-charge of an institution other than a shelter home or drop-in-centre shall hold an inquiry about such escape and send his report to the Board or Committee and the authorities concerned and the report shall be placed before the Management Committee set up under rule 56 of these rules in the next meeting for review.

(3) The offences against a juvenile in conflict with law or a child specified in sections 23, 24, 25 and 26 shall be either bailable or non-bailable besides being cognizable under the provisions of the Code of Criminal Procedure, 1973 (2 of 1974)

and the procedures shall apply on the Police, the Board and the concerned authorities and functionaries accordingly.

CHAPTER IV

CHILD IN NEED OF CARE AND PROTECTION

19. Child Welfare Committee.-

There shall be a Child Welfare Committee in every district, which shall be constituted by the State Government through a notification in the Official Gazette as per sub-section (1) of section 29 of the Act.

20. Composition of the Child Welfare Committee.-

(1) The Committee shall consist of a Chairperson and four other members, of whom at least one shall be a woman.

(2) The Chairperson and members of the Committee shall be appointed on the recommendation of a Selection Committee set up by the State Government, for the purpose under rule 92.

(3) The Selection Committee, while Selecting the Chairperson and Members of the Committee, shall as far as possible ensure that none of them are from any adoption agency.

(4) The state Government shall provide for such training and orientation in child psychology, child welfare, child rights, national and international standards for juvenile justice to all members of the Committee as it considers necessary.

21. Tenure of the Committee.-

(1) The Committee shall have a tenure of three years and the tenure of Chairperson and Members shall be co-terminus with the tenure of the Committee.

(2) The Chairperson and Members of the Committee shall be eligible for appointment for a maximum of two consecutive terms.

(3) Extension of the tenure of members of the Committee shall be on the basis of their performance appraisal by the District Child Protection Unit or the State Government and on the recommendation of the Selection Committee.

(4) With a view to ensuring continuity on completion of the tenure of a Committee, the State Government shall constitute a new Committee before the expiry of the term of the existing Committee; where after the existing Committee shall handover all records and information to the newly formed Committee.

(5) The Chairperson and Members may resign at any time by giving one month's notice in writing or may be removed from office as provided in sub-section (4) of section 29 of the Act.

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(6) Any casual vacancy in the Committee may be filled by appointment of another person from the panel of names prepared by the Selection Committee, and shall hold office for the remaining term of the Committee.

(7) At least two members of the Committee must be staying in the District Headquarters.

22. Qualifications for Chairperson and Members of the Committee.-

(1) A person to be selected as a Chairperson or Member of the Committee shall have either of the following qualifications, in addition to a minimum of seven years experience in their respective field:

(i) a person with post graduate degree in social work, psychology, child development, education, sociology, law, criminology and, where such a person is not available, a person with at least a graduate degree in any of the social science disciplines;

(ii) a teacher, doctor or a social worker who has been involved in work concerning children.

(2) The Chairperson or Member of the Committee shall be a person not less than 35 years of age.

(3) No person shall be considered for Selection as a Chairperson or Member of the Committee, if he,-

(i) has a previous conviction record;

(ii) has been involved in any immoral act or in an act of child abuse or employment of child labour;

(iii) is holding such full-time occupation that may not allow him to give necessary time and attention to the work of the Committee as per the Act and these rules;

(iv) does not fulfill the qualification and experience prescribed in the Act and the rules made thereunder, and in such a case the Selection Committee shall after due inquiry and on establishment of such fact, reject his application and recommend the name of the next person from the list of names prepared for filling the vacancies.

23. Sitting and conveyance allowances.-

The Chairperson and Members of the Committee shall be paid such travel and sitting allowance, as the State Government may determine, but it shall not be less than rupees five hundred per sitting per member.

24. Sitting of the Committee.-

(1) The Committee shall hold its sittings in the premises of the children's home or, at a place in proximity to the children's home or, at a suitable premise in any institution run under the Act.

(2) On receiving information about child or children in need of care and protection, if circumstances are such that the child or children cannot be produced before the Committee, the Committee may move out to reach the child or children and hold its sitting at a place that is convenient for such child or children.

(3) The premises where the Committee holds its sittings shall be child-friendly and shall not look like a court room in any manner whatsoever; for example, the Committee shall not sit on a raised platform and the sitting arrangement shall be uniform and there shall be no witness boxes.

(4) The Committee shall meet a minimum of one day a week, which may be extended by the State Government depending on case and pendency of work.

(5) A minimum of three-fourth attendance of the Chairperson and Members of the Committee is necessary in a year.

(6) The duration of a sitting is dependent on the pendency of work before the Committee.

(7) Every member of the Committee shall attend a minimum of three hours per sitting.

25. Functions and Powers of the Committee.-

The Committee shall perform the following functions to achieve the objectives of the Act, namely:-

(a) take cognizance of and receive children produced before the Committee;

(b) decide on the matters brought before the Committee;

(c) reach out to such children in need of care and protection who are not in a position to be produced before the Committee, being in difficult circumstances, with support from the District Child Protection Unit or State Child Protection Unit or the State Government;

(d) conduct necessary inquiry on all issues relating to and affecting the safety and well being of the child;

(e) direct the Child Welfare Officers or Probation Officers or non-governmental organisations to conduct social inquiry and submit a report to the Committee;

(f) ensure necessary care and protection, including immediate shelter;

(g) ensure appropriate rehabilitation and restoration, including passing necessary directions to parents or guardians or fit persons or fit institutions in this regard, in addition to follow up and co-ordination with District Child Protection Unit or State Adoption Resource Agency and other agencies;

(h) direct the Officer-in-charge of children's homes to receive children requiring shelter and care;

(i) document and maintain detailed case record along with a case summary of every case dealt by the Committee;

(j) provide a child-friendly environment for children;

(k) recommend 'fit institutions' to the State Government for the care and protection of children;

(l) declare 'fit persons';

(m) declare a child legally free for adoption;

(n) keep information about and take necessary follow-up action in respect of missing children in their jurisdiction;

(o) maintain liaison with the Board in respect of cases needing care and protection;

(p) visit each institution where children are sent for care and protection or adoption at least once in three months to review the condition of children in institutions, with support of the State Government and suggest necessary action;

(q) monitor associations and agencies within their jurisdiction that deal with children in order to check on the exploitation and abuse of children;

(r) co-ordinate with the Police, Labour Department and other agencies involved in the care and protection of children with the support of District Child Protection Unit or State Child Protection Unit or State Government;

(s) liaison and network with the corporate sector and non-governmental organisations for any of the above, including for social inquiry, restoration and rehabilitation, as and when required; and

(t) maintain a suggestion box to encourage inputs from children and adults alike and take necessary action.

26. Procedure in relation to Committee.-

(1) The quorum for the meeting shall be three members attending, which may include the Chairperson.

(2) Any decision taken by an individual member, when the Committee is not sitting, shall require ratification by the Committee in its next sitting.

(3) The Committee shall take into consideration the age, developmental stage, physical and mental health, opinion of the child and the recommendation of the child welfare officer or caseworker, prior to disposal of cases.

(4) For final disposal of a case, the order of the Committee shall be signed by at least two members, including the Chairperson.

27. Production of a Child before the Committee.-

(1) A child in need of care and protection shall be produced before the Committee within twenty-four hours, excluding journey time, by one of the following persons -

(a) any police officer or Special Juvenile Police Unit or a designated police officer;

(b) any public servant;

(c) childline, a registered voluntary organization or by such other voluntary organization or an agency as may be recognized by the State Government;

(d) social worker;

(e) any public spirited citizen; or

(f) by the child himself.

(2) In case of a child under two years of age, who is medically unfit, the person or the organization shall send a written report along with the photograph of the child to the Committee within twenty-four hours and produce the child before the committee as soon as the child is medically fit along with a medical certificate to that effect.

(3) The Committee can *suo motu* take cognizance of cases brought to their notice and reach out to a child in need of care and protection where necessary and the District or the State Child Protection Unit or the State Government shall provide necessary support and assistance to the Committee for carrying out such functions.

(4) In case the Committee is not sitting, the child may be produced before the single member of the Committee as per the provisions laid down under the sub-section (2) of section 30 of the Act for being placed in safe custody of parent or guardian or fit

person or fit institutions, as the case may be, till such time that the child can be produced before the Committee.

(5) In case the single member is also not accessible, or that the hours are odd, the child shall be taken by the non-governmental organisation or Childline or Police to an appropriate institution for children registered under the Act with all the necessary documents, and placed in such institution till the time of production before the Committee.

(6) The concerned institution shall inform the Chairperson or a member of the Committee about such child and produce the child before the Committee within twenty four hours and in such cases, it may not be necessary for the person who brings a child in need of care and protection to an institution to be present at the time of production of the child before the Committee.

(7) Whoever produces a child before the Committee shall submit a report on the circumstances under which the child came to their notice and efforts made by them on informing the police and the missing persons squad and in cases where a recognized voluntary organization or any police personnel produce a child before the Committee, they shall also submit a report on the efforts made by them for tracing the family of the child.

(8) Any general medical or gynecological examination of children shall not be a pre-requisite for production of the child before the Committee or admission in an institution.

(9) The Committee shall facilitate the filing of a police complaint and First Information Report in cases of missing children as well as matters of violence, exploitation and abuse of children and arrange for required legal aid through the Legal Officer in the District Child Protection Unit or District or State Legal Aid Services Authority or voluntary organisations.

(10) Each Committee shall send quarterly information about children in need of care and protection received by them to the District or State Child Protection Unit or State Government.

(11) Children shall be provided a child-friendly environment during the proceedings of the Committee.

(12) The Committee shall have an empanelled list of lawyers, social workers and mental health expert who may assist the Committee in dealing with cases of abused children and who may also interface with the Public Prosecutor or Assistant Public Prosecutor to facilitate legal services to the abused children, when the cases relating to such children are taken up in regular criminal courts.

(13) Every possible effort shall be made to trace the family with support from the District Child Protection Unit, and assistance of recognized voluntary organizations, childline or police may also be taken.

(14) The Committee shall send the child to the designated place of safety, with age and gender appropriate facilities, pending inquiry and in such eventuality, the District Child Protection Unit or State Child Protection Unit or State Government shall provide transport or make necessary budgetary allocations for such expenses based on the actual fare.

(15) The child may be escorted by the police officer or representative of the voluntary organization or by any other arrangement as considered appropriate by the Committee with support from the District Child Protection Unit and in case of a girl child, a female escort shall accompany the child.

(16) A list of all recognized child care institutions along with their capacity and appropriate facilities as prescribed under section 34 of the Act, a list of all child related resource services and a list of contact details of all Child Welfare Committees across the country shall be provided to the Committee by the District Child Protection Unit or State Government.

(17) The Committee may, while making an order in **Form VIII** placing a child under the care of a parent, guardian or fit person pending inquiry or at the time of restoration, as the case may be, direct such parent, guardian or fit person to enter into an undertaking in **Form IX**.

(18) Whenever the Committee orders a child to be kept in an institution, it shall forward to the Officer-in-charge of such institution a copy of the order of short term placement pending inquiry, in **Form X** with particulars of the home and parents or guardian and previous record.

(19) Whenever the Committee orders a child to be kept in a fit institution as part of restoration under clause (f) of sub- section (3) of section 39 of the Act, it shall forward a copy of its order of restoration in **Form XI** to the Officer-in-charge of such institution.

(20) The child shall be placed in an institution closest to where his parents or guardians belong as far as possible, unless the child has been subjected to abuse or exploitation by parents or guardians.

28. Procedure for inquiry.-

(1) When a child is brought before the Committee, the Committee shall assign the case to a social worker or caseworker or child welfare officer or Officer-in-charge as the case may be, of the institution or any recognized agency for conducting the inquiry through an order in **Form XII**.

(2) The Committee shall direct the concerned person or organization about the details or particulars to be enquired into for developing an individual care plan and suitable rehabilitation.

(3) All inquiries conducted by a social worker or caseworker or child welfare officer or Officerin-charge of the institution or any recognized agency shall be as per **Form XIII** and must provide an assessment of the family situation of the child in detail, and explain in writing whether it will be in the best interest of the child to restore him to his family.

(4) The inquiry must be completed within four months or within such shorter period as may be fixed by the Committee:

Provided that the Committee may, in the best interest of the child and for the reasons to be recorded in writing, extend the said period under special circumstances.

(5) After completion of the inquiry, if, the child is under orders to continue in the children's home, the Committee shall direct the Officer-in-charge of the home to submit quarterly progress report of such child and produce the child before the Committee for an annual review of the progress.

29. Children Affected by Conflict, Commotion, Calamity.-

(1) The state Government shall be responsible to ensure that swift, adequate and appropriate measures are taken for the rescue, immediate assistance, safety and long-term rehabilitation of children who are victims of any armed conflict, civil commotion or natural calamity etc.

(2) The State Government shall ensure that the State Disaster Management Authority shall include in its plan of action, the existing infrastructure of institutions under the Act to provide immediate assistance and long-term rehabilitation to the children who are victims of any armed conflict, civil commotion or natural calamity etc.

(3) The State Government shall prepare and train at regular intervals all the institutions under the Act to provide rescue, immediate assistance, medical care, safety and long-term rehabilitation of children who are victims of any armed conflict, civil commotion or natural calamity etc.

Explanation.- To facilitate prompt response to the emergency situation created by the conflict, commotion or calamity mentioned above, the Director Social Defence shall maintain at the Observation Home or similar appropriate Institutions, a rescue and relief kit consisting of temporary shelters such as tents, cooking implements (stove, vessels, container for storage of drinking water etc) bedding materials, first aid materials and mobile toidets for the privacy of girls children.

(4) In addition to the existing infrastructure, the State Government may set up as many temporary Shelter homes as necessary with the assistance of voluntary organizations. If such voluntary organizations are not already certified under the Act; it shall be the responsibility of the voluntary organizations to get certification or recognition from the State Government and the State Government shall extend all possible assiatance in this respect to ensure participation of such organization.

(5) All physical and mental health needs of the child shall be attended to immediately. Medical assistance shall be made available immediately and appropriate linkage shall be made with local government hospitals, private clinics and medical associations, particularly in the specializations of pediatrics and gynecology.

(6) To ensure the well being of children affected by disaster, conflict and similar social, political, natural and other disturbances, the Child Welfare Committee shall meet as often as required.

(a) If necessary the State Government may constitute more temporary Child Welfare Committees as required by appointing members from the panel of names prepared by the Selection Committee to fill vacancies in the Child Welfare Committee.

(b) Giving due consideration to the dynamics associated with conflict and other such disturbances, instead of taking affected children and producing them before the Child Welfare Committee, the members of the Committee shall visit the temporary Shelter Homes or relief sites.

(7) Children must be informed of their own situation as well as details of their family if known, the progress in re-settlement and any other issue that may be relevant to the child.

(8) There shall be no discrimination based on caste, religion, language, ethnic origin, gender or any other status by either staff or other children.

(9) Respect for cultural needs; Keeping in mind that the children may be from diverse cultural backgrounds, every effort must be made to be made to be sensitive to the children's cultural and social needs such as food preferences, communication in the child's language and making the children comfortable and secure and so as to reduce the stress of being in an alien environment, The child shall be allowed to practice his or her own religion, rituals and festivals.

(10) Family and community based re integration shall be given priority. However, with due regard to the root cause and special circumstances of the case, exceptions may be made with reasons recorded in writing.

(11) The competent authorities shall respect and ensure respect for relevant rules of international humanitarian law applicable in situations of armed conflict.

(12) Need assessment of the child shall be done by a child psychologist or trained social worker as soon as possible or atleast within four days of arrival. Personnel shall make every effort to understand, report and respond to the deep psychological impact on such children and shall strive to receive and deal with the child sensitively. In preparation of the report and during procedures, every effort shall be made to avoid secondary victimization.

(13) All information regarding the affected child shall be recorded in from all X and copies shall be forwarded to Director of Social Defence and Child Welfare Committee.

(14) Special care shall be taken to ensure that legal rights of children affected by such disturbing situation are secured and action taken under the relevant laws.

(15) In case of death of the child's parents due to the disaster or conflict, the State Government shall ensure that the child's property rights and right to compensation are secured and such assets and monies protected till the child attains adulthood. The child shall be kept informed of all his rights and assets and protected against exploitation by family members/community members or any other person/organization.

(16) Every effort shall be made to trace the child's family/ extended family within the shortest appropriate time, If the children are orphaned and have no extended family, then keeping in mind the principle of best interest of the child, alternative foster or adoptive families may be identified, preferably from within the child's community.

(17) In all such situations of conflict, disaster and disturbance, special care shall be made to protect issues girl children from abuse and exploitation.

(18) The following issues shall be addressed at the time of re settlement:

(i) Condition in the home environment and report on the desirability of the child continuing to stay in the home environment considering the present state of disaster, conflict or disturbance.

(ii) If the family is unable to take care of the child due to financial reasons, sponsorship or assistance through other Government welfare schemes may be considered.

30. Children's Homes.-

(1) The State Government itself or in association with voluntary organizations, shall set up separate homes for children in need of care and protection, in the manner specified below-

(a) all children's homes shall be registered as child care institutions under sub-section (3) of section 34 of the Act and rule 72 of these rules;

(b) all children's homes shall be certified as per the procedure laid down in rule 71;

(c) all children's homes shall report to the concerned Committee about every child in need of care and protection received by them;

(d) children of both sexes below ten years may be kept in the same home but separate facilities shall be maintained for boys and girls in the age group 5 to 10 years;

(e) every children's home shall include separate facilities for children in the age group of 0-5 years with appropriate facilities for the infants;

(f) separate children's homes shall be set up for boys and girls in the age group 10 to 18 years;

(g) children in the age group of 10 to 18 shall be further segregated into two groups of 10 to 15 years and 15 to 18 years.

(2) Each children home shall be a comprehensive child care center with the primary objective to promote an integrated approach to child care by involving the community and local Non-Governmental Organisations through the Management Committee set up under rule 56 of these rules and the District Child Protection Unit or State Child Protection Unit or the State Government shall make an annual performance review of functioning of the children's homes.

(3) The activities of such centre shall focus on:

(a) preparing and following individual care plans for every child, with rights based approach, specifically addressing the child's physical and mental health, emotional needs, education, skill development, protection and special needs if any;

(b) family based non-institutional services, such as, foster family care, adoption and sponsorship;

(c) specialized services in situations of conflict or disaster and for juvenile or children affected by terminal or incurable disease to prevent neglect by providing family counselling, nutrition, health interventions, psycho-social interventions and sponsorship;

(d) emergency outreach service through childline (Toll free Help Line No. 1098);

(e) linkages with Integrated Child Development Services to cater to the needs of children below six years;

(f) linkages with organizations and individuals who can provide support services to children; and

(g) opportunities to volunteers willing to provide various services for children.

31. Shelter Homes.-

(1) For children in urgent need of care and protection, such as street children and run-away children, the State Government shall support creation of requisite number of shelter homes or drop-in- centres through the voluntary organizations.

(2) Shelter homes shall include:

(a) short-stay homes for children needing temporary shelter, care and protection for a maximum period of one year,

(b) transitional homes providing immediate care and protection to a child for a maximum period of four months,

(c) 24 hour drop-in-centers for children needing day care or night shelter facility.

(3) The shelter homes or drop-in-centers shall have the minimum facilities of boarding and lodging, besides the provision for fulfillment of basic needs in terms of clothing, food, health care and nutrition, safe drinking water and sanitation.

(4) There shall be separate shelter homes for girls and boys as per rule 41(2)(d) of these rules.

(5) All shelter homes shall provide requisite facilities for education, vocational training, counseling and recreation or make arrangements for it in collaboration with voluntary organizations or corporate sector.

(6) The Committee, Special Juvenile Police Units, public servants, Childlines, voluntary organizations, social workers and the children themselves may refer a child to such shelter homes.

(7) All shelter homes shall submit a report of children using the shelter home facility along with a photograph of the child to the Committee, the missing persons bureau or special juvenile police unit and the District Child Protection Unit or the State Child Protection Unit.

(8) The requirements of producing a child received by a shelter home before the Committee, inquiry and disposal under sections 32, 33, 38 and 39 of the Act shall apply only to shelter homes other than drop-in-centers as specified in rule 31(2)(c) of these rules.

(9) The services of Officer-in-charge, child welfare officer, social worker shall be provided for the proper care, protection, development, rehabilitation and reintegration needs of children in shelter homes.

(10) No child shall ordinarily stay in a short stay home for more than a year except in special circumstances with the approval of the Committee.

(11) The units of children sanctioned under the erstwhile "Scheme for welfare of Children in need of care and Protection" of the Government of India may seek recognition as Shelter Homes under the Act.

32. Guidelines for prevention of sexual abuse of children.-

The State Government, the Juvenile Justice Board, the Child Welfare Committee, other competent authorities and agencies shall, in the best interest of children, ensure that every person, school or such other educational institutions abide by the guidelines issued from time to time by Central Government and State Government.

CHAPTER V

REHABILITATION AND SOCIAL REINTEGRATION

33. Rehabilitation and Social Reintegration.

The primary aim of rehabilitation and social reintegration is to help children in restoring their dignity and self-worth and mainstream them through rehabilitation within the family where possible, or otherwise through alternate care programmes and long-term institutional care shall be of last resort.

34. Adoption.

(1) The primary aim of adoption is to provide a child who cannot be cared for by his biological parents with a permanent substitute family.

(2) For all matters relating to adoption, the guidelines issued by the Central Adoption Resource Agency and notified by the Central Government under sub-section (3) of section 41of the Act, shall apply.

(3) In case of orphaned and abandoned children the following procedure shall apply, namely:-

(a) Specialized Adoption Agencies shall produce all orphaned and abandoned children who are to be declared legally free for adoption before the Committee within twenty-four hours of receiving such children, excluding the time taken for journey;

(b) a child becomes eligible for adoption when the Committee has completed its inquiry and declares the child legally free for adoption;

(c) such declaration shall be made in **Form XIV**;

(d) a child must be produced before the Committee at the time of declaring such child legally free for adoption;

(e) whenever intimation is received by the police about an abandoned infant, the police shall take charge of the infant and arrange to provide immediate medical assistance and care;

(f) subsequently, the child shall be placed in a specialized adoption agency or recognized and certified children's home or in a pediatric unit of a Government hospital followed by production of the child before the Committee within twenty-four hours;

(g) procedure for declaring a child abandoned and certifying him legally free for adoption:

(i) in case of an abandoned child, the recognized agency shall within twenty four hours, report and produce the child before the Committee

with the copy of the report filed with the police station in whose jurisdiction the child was found abandoned;

(ii) the Committee will institute a process of inquiry, which shall include a thorough inquiry conducted by the Probation Officer or Child Welfare Officer, as the case may be and who shall give report in **Form XIII** to the Committee containing the findings within one month;

(iii) there shall be a declaration by the specialized adoption agency, stating that there has been no claimant for the child even after making notification in at least one leading national newspaper and one regional language newspaper for children below two years of age and for children above two years, an additional television or radio announcement and notification to the missing persons squad or bureau shall be made;

(iv) the steps stated in (iii) shall be taken within a period of sixty days from the time when the child is found in case of a child below two years of age and in case of children above two years of age, this period shall be four months;

(v) the period of notification shall run concurrently with the inquiry to be conducted and report submitted under clause (ii) of this sub-rule;

(vi) the Committee shall declare the child legally free for adoption on completion of the process of inquiry, including declaration of the specialized adoption agency made under clauses (ii) and (iii) of this sub-rule;

(vii) no child above seven years who can understand and express his opinion shall be declared free for adoption without his consent.

(4) In case of surrendered children the following procedure shall apply, namely:-

(a) a surrendered child is one who had been declared as such after due process of inquiry by the Committee and in order to be declared legally free for adoption, a 'surrendered' child shall be any of the following:

(i) born as a consequence of non-consensual relationship;

(ii) born of an unwed mother or out of wedlock;

(iii) a child in whose case one of the biological parents is dead and the living parent is incapacitated to take care;

(iv) a child where the parents or guardians are compelled to relinquish him due to physical, emotional and social factors beyond their control;

(b) serious efforts shall be made by the Committee for counselling the parents, explaining the consequences of adoption and exploring the possibilities of parents retaining the child and if, the parents are unwilling to retain, then, such children shall be kept initially in foster care or arranged for their sponsorship;

(c) if the surrender is inevitable, a deed of surrender in **Form XV** shall be executed on a non-judicial stamp paper in the presence of the Committee;

(d) the adoption agencies shall wait for completion of two months reconsideration time given to the biological parent or parents after surrender;

(e) in case of a child surrendered by his biological parent or parents, the document of surrender shall be executed by the parent or parents before the Committee;

(f) after due inquiry, the Committee shall declare the surrendered child legally free for adoption in **Form XIV** as the case may be after a sixty days' reconsideration period as per Central Adoption Resource Agency guidelines.

(5) For the purposes of section 41 of the Act, 'court' implies a civil court, which has jurisdiction in matters of adoption and guardianship and may include the court of the district judge, family courts and city civil court.

35. Foster Care.-

(1) For children who cannot be placed in adoption, order shall be issued by the competent authority in **Form XVII** for carrying out foster care, as given in sub-section (2) of section 42 of the Act and rule 36 (1) of these rules, under the supervision of a probation officer or case worker or social worker, as the case may be, and the period of foster care shall depend on the need of the child.

(2) The State Government shall design its own foster care programme so as to reduce institutionalization of children and enable a nurturing family environment for every child.

(3) The State Government shall consult the Boards or Committees, non-governmental organisations, academicians and organizations working on alternative care for children in developing the foster care programme.

36. Criteria for selection of families for foster care.-

(1) In case of the children covered under rule 35 of these rules, the following criteria shall apply for selection of families for foster care, namely:-

(i) foster parents should have stable emotional adjustment within the family;

(ii) foster parents should have an income in which they are able to meet the needs of the child and are not dependent on the foster care maintenance payment;

(iii) the monthly family income shall be adequate to take care of foster children and approved by the Committee;

(iv) medical reports of all the members of the family residing in the premises should be obtained including checks on Human Immuno Deficiency Virus (HIV), Tuberculosis (TB) and Hepatitis B to determine that they are medically fit;

(v) the foster parents should have experience in child caring and the capacity to provide good child care;

(vi) the foster parents should be physically, mentally and emotionally stable;

(vii) the home should have adequate space and basic facilities;

(viii) the foster care family should be willing to follow rules laid down including regular visits to pediatrician, maintenance of child health and their records;

(ix) the family should be willing to sign an agreement and to return the child to the specialized adoption agency whenever called to do so;

(x) the foster parents should be willing to attend training or orientation programmes; and

(xi) the foster parents should be willing to take the child for regular (at least once a month in the case of infants) checkups to a pediatrician approved by the agency.

(2) There shall be no discrimination in selection of foster-parents on the basis of caste, religion, ethnic status, disability, or health status and the best interest of the child shall be paramount in deciding foster-care placement.

(3) The foster parents shall be declared 'fit persons' by the Committee before placing the child as per the provisions laid down in clause (i) of section 2 of the Act after thorough assessment done by the Child Welfare Officer or Social Worker as per **Form XVI**.

37. Pre-adoption Foster Care.-

In case of pre-adoption foster care, the provisions contained in sub-section (1) of section 42 and the corresponding guidelines notified under sub-section (3) of section 41 of the Act, shall apply.

38. Sponsorship.-

(1) The State Government shall prepare sponsorship programme in consultation with the Non Governmental Organisations, Child Welfare Committees, other relevant government agencies and the corporate sector.

(2) The State Government, with the help of District or State Child Protection Units shall identify families and children at risk and provide necessary support services in the form of sponsorship for child's education, health, nutrition and other developmental needs.

(3) The children's homes and special homes shall promote sponsorship programmes as laid down in section 43 of the Act.

(4) The institutions receiving sponsorship, shall maintain proper and separate accounts of all the receipts and payments for the programme.

(5) The Board or the Committee shall make an order in **Form XVIII** for support to a juvenile or child through sponsorship and send a copy to the District or State Child Protection Unit or the State Government for appropriate action.

39. After Care Organisation.-

(1) The State Government shall set up an after care programme for care of juveniles or children after they leave special homes and children's homes with the objective to facilitate their transition from an institution-based life to mainstream society for social re-integration.

(2) After care programmers shall be made available for 18-21 year old persons, who have no place to go to or are unable to support themselves, by the District or State Child Protection Units in collaboration with voluntary organizations for the purpose of section 44 of the Act and this rule.

(3) Once the Board or the Committee passes an order in **Form XIX** for placing a juvenile or a child completing 18 years of age under the after care programme, a copy of such order shall be sent to the District and the State Child Protection Unit and the State Government, who shall be responsible for arranging after care.

(4) The Board or the Committee shall have jurisdiction over persons placed in after care programme.

(5) The objective of these organisations shall be to enable such children to adapt to the society and during their stay in these transitional homes these children will be encouraged to move away from an institution-based life to a normal one.

(6) The key components of the programme shall include:-

(a) community group housing on a temporary basis for groups of young persons aged 18-21 years;

(b) encouragement to learn a vocation or gain employment and contribute towards the rent as well as the running of the home;

(c) encouragement to gradually sustain themselves without state support and move out of the group home to stay in a place of their own after saving sufficient amount through their earnings;

(d) provision for a peer counsellor to stay in regular contact with these groups to discuss their rehabilitation plans and provide creative outlets for their energy and to tide over crisis periods in their life.

(7) During the course of vocational training a stipend may be provided till such time that the youth gets employment.

(8) Loans may be arranged for the youth in an after care programme aspiring to set up entrepreneurial activities on the basis of an application made by them and due verification of the need for such a loan, and necessary professional advice and training shall be made available to the youth in the after care programme in this regard.

(9) The structure shall include 6 to 8 youths in each group home who may opt to stay together on their own and one peer counsellor for a cluster of five group homes.

40. Linkages and co-ordination.-

(1) The State Government shall circulate a copy of the Act and the rules framed thereunder to establish effective linkages between various government, non-government, corporate and other community agencies for facilitating the rehabilitation and social reintegration of juveniles or children through the Board or the Committee as the case may be.

(2) The State Government with the help of State or District Child Protection Unit shall identify the roles and responsibilities of each department at State or district levels for effective implementation of the Act and the rules and inform them through a notification.

(3) The State Government with the help of State or District Child Protection Unit shall arrange for appropriate training and sensitization of functionaries of these departments from time to time in coordination with National Institute of Public Co-operation and Child Development and its Regional Centers.

(4) The State Government with the help of State or District Child Protection Unit shall develop effective networking and linkages with local non-governmental organizations for specialized services and technical assistance like vocational training, education, health care, nutrition, mental health intervention, drug de-addition and legal aid services.

CHAPTER VI

STANDARDS OF CARE FOR INSTITUTIONS

41. Physical infrastructure.-

(1) The homes for juveniles in conflict with law and children in need of care and protection shall function from separate premises.

(2) The accommodation in each institution shall be as per the following criteria, namely:-

(a) Observation Home:

(i) Separate observation homes for girls and boys;

(ii) Classification and segregation of juveniles according to their age group preferably 7-11 years, 12-16 years and 16-18 years, giving due consideration to physical and mental status and the nature of the offence committed.

(b) Special Home:

(i) Separate special homes for girls above the age of 10 years and boys in the age groups of 11 to 15 and 16 to 18 years;

(ii) Classification and segregation of juveniles on the basis of age and nature of offences and their mental and physical status.

(c) Children's Home:

(i) While children of both sexes below 10 years can be kept in the same home, separate bathing and sleeping facilities shall be maintained for boys and girls in the age group of 5-10 years;

(ii) Separate children's homes for boys and girls in the age group of 7-11 and 12- 18 years;

(iii) Separate facilities for children in the age group of 0-5 years with appropriate facilities for infants.

(d) Shelter Home:

(i) Separate shelter homes for girls and boys;

(ii) Separate shelter homes for girls above the age of 10 years and boys in the age groups of 11 to 15 and 16 to 18 years.

(3) The norms for building or accommodation for an institution with 50 juveniles or children shall be as under :

(i)	2 Dormitories	Each 1000 Sq. ft. for 25 juveniles/children i.e. 2000 Sq. ft.
(ii)	2 Classrooms	300 Sq. ft. for 25 juveniles/children i.e. 600 Sq. ft.

(iii)	Sickroom/First aid room	75 Sq. ft. per juvenile/children for 10 i.e. 750 Sq. ft.
(iv)	Kitchen	250 Sq. ft.
(v)	Dining Hall	800 Sq. ft.
(vi)	Store	250 Sq. ft.
(vii)	Recreation room	300 Sq. ft.
(viii)	Library	500 Sq. ft.
(ix)	5 bathrooms	25 Sq. ft. each i.e. 125 Sq. ft.
(x)	8 toilets/latrines	25 Sq. ft. each i.e. 200 Sq. ft.
(xi)	Office rooms	(a) 300 Sq. ft. (b) Superintendent's room = 200 sq. fit
(xii)	Counseling and guidance room	120 Sq. ft.
(xiii)	Workshop	1125 Sq. ft. for 15 juvenile @75 Sq. ft. per trainee
(xiv)	Residence for Superintendent	
		(a) 2 rooms of 250 Sq. ft. each
		(b) kitchen 75 Sq. ft.
		(c) bathroom cum Toilet/latrine 50 Sq. ft
(xv)	2 Rooms for Juvenile Justice Board /Child Welfare Committee	300 Sq. ft. each i.e. 600 Sq. ft.
(xvi)	Play ground	Sufficient area according to the total number of juveniles or children
Total		**8495 Sq. ft.**

(4) The Superintendent shall stay within the institution and be provided with quarters and in case he is not able to stay in the home for legitimate reasons (to be permitted by Director of Social Defence, Child Protection), any other senior staff member of the institution shall stay in the institution and be in a position to supervise the overall care of the children or juveniles and, take decisions in the case of any crisis and emergency.

(5) (i) the standards of accommodation as per the norms laid down in rule 41(2) shall be observed to the extent possible and shall include a minimum of following facilities :

(a) Dormitory : 40 Sq. ft. per juvenile or child

(b) Classroom : 300 Sq. ft for 25 juvenile or child

(c) Workshop : 75 Sq. ft. per juvenile or child

(d) Play ground : Sufficient play ground area shall be provided in every institution according to the total number of juveniles in institution.

(ii) there shall be proper and smooth flooring for preventing accidents.

(iii) there shall be adequate lighting, ventilation, heating and cooling arrangements, safe drinking water and clean toilets, in terms of gender, age appropriateness and accessibility.

(iv) all institutions under the Act shall make provision of first aid kit, fire extinguishers in kitchen, dormitories, store rooms, counselling room, periodic review of electrical installations, proper storage and inspection of articles of food stuffs, stand-by arrangements for water storage and emergency lighting.

(6) The Observation homes and special homes shall be child-friendly and in no way shall they look like a jail or lock-up.

42. Clothing and Bedding.-

The clothing and bedding shall be as per the scale and climatic conditions. The requirements of each juvenile or child and the minimum standards for clothing and bedding are laid down in **Schedule-I** of these rules.

43. Sanitation and Hygiene.-

Every institution shall have the following facilities, namely:-

(a) sufficient treated drinking water; water filters shall be installed;

(b) sufficient water for bathing and washing clothes, maintenance and cleanliness of the premises;

(c) proper drainage system;

(d) arrangements for disposal of garbage;

(e) protection from mosquitoes by providing mosquito nets;

(f) annual pest control;

(g) sufficient number of well lit and airy toilets in the proportion of at least one toilet for seven children;

(h) sufficient number of well lit and airy bathrooms in the proportion of at least one bath room for seven children;

(i) sufficient space for washing;

(j) clean and fly-proof kitchen and separate area for washing utensils;

(k) sunning of bedding and clothing;

(l) maintenance of cleanliness in the Medical Centre.

44. Daily Routine.-

(1) Every institution shall have a daily routine for the juveniles or children developed in consultation with the Children's Committees, which shall be prominently displayed at various places within the institution.

(2) The daily routine shall provide, *inter alia,* for a regulated and disciplined life, personal hygiene and cleanliness, physical exercise, yoga, educational classes, vocational training, organized recreation and games, moral education, group activities, prayer and community singing and special programmes for sundays and holidays.

45. Nutrition and Diet Scale.-

The following nutrition and diet scale shall be followed by the institutions, namely:-

(a) the children shall be provided four meals in a day including breakfast;

(b) the menu shall be prepared with the help of a nutritional expert or doctor to ensure balanced diet and variety in taste as per the minimum nutritional standard and diet scale set out in **Schedule II** of these rules;

(c) every institution under this Act shall strictly adhere to the minimum nutritional standard and diet scale specified in **Schedule II**;

(d) juveniles or children may be provided special meals on holidays and festivals;

(e) infants and sick juveniles or children shall be provided special diet according to the advise of the doctor on their dietary requirement.

46. Medical Care.-

Every institution shall:

(a) maintain a medical record of each juvenile or child on the basis of monthly medical check-up and provide necessary medical facilities;

(b) ensure that the medical record includes weight and height record, any sickness and treatment, and other physical or mental problem;

(c) have arrangement for the medical facilities, including a doctor on call available on all working days for regular medical check-ups and treatment of juveniles or children;

(d) have sufficient medical equipments to handle minor health problems including first aid kit with stock of emergency medicines and consumables;

(e) train all staff in handling first aid;

(f) tie-up with local Primary Health Centre, government hospital, medical colleges, other hospitals, clinical psychologists and psychiatrists and mental health institutes for regular visits by their doctors and students and for holding periodic health camps within the institutions;

(g) make necessary arrangements made for the immunization coverage;

(h) take preventive measures in the event of out break of contagious or infectious diseases;

(i) set up a system for referral of cases with deteriorating health or serious cases to the nearest civil hospital or recognised treatment centres;

(j) keep sick children under constant medical supervision;

(k) admit a juvenile or child without insisting on a medical certificate at the time of admission;

(l) arrange for a medical examination of each juvenile or child admitted in an institution by the Medical Officer within twenty four hours and in special cases or medical emergencies immediately;

(m) arrange for a medical examination of the juvenile or child by the Medical Officer at the time of transfer within twenty four hours before transfer;

(n) not carry out any surgical treatment on any juvenile or child without the previous consent of his parent or guardian, unless either the parent or guardian cannot be found and the condition of the juvenile or child is such that any delay shall, in the opinion of the medical officer, involve unnecessary suffering or injury to the health of the juvenile or child, or otherwise without obtaining a written consent to this effect from the Officer-in-charge of the institution;

(o) provide or arrange for regular counseling of every juvenile or child and ensure specific mental health interventions for those in need of such services, including separate rooms for counseling sessions within the premises of the institution;

(p) refer such children who require specialized drug abuse prevention and rehabilitation programme, to an appropriate centre administered by qualified personnel where these programmes shall be adopted to the age, gender and other specifications of the concerned child.

47. Mental Health.-

(1) A mental health record of every juvenile or child shall be maintained by the concerned institutions.

(2) Both mileu based interventions that is creating an enabling environment for children and individual therapy are must for every child and shall be provided in all institutions.

Explanation.- For the purpose of this sub-rule, mileu based intervention is a process of recovery, which starts through providing an enabling culture and environment in an institution so as to ensure that each child's abilities are discovered and they have choices and right to take to decisions regarding their life and thus, they develop and identify beyond their negative experiences and such intervention has a critical emotional impact on the child.

(3) The environment in an institution shall be free from abuse, allowing juveniles or children to cope with their situation and regain confidence.

(4) All persons involved in taking care of the juveniles or children in an institution shall participate in facilitating an enabling environment and work in collaboration with the therapists.

(5) Individual therapy is a specialized process and each institution shall make provisions for it as a critical mental health intervention.

(6) Every institution shall have the services of trained counselors or collaboration with external agencies such as child guidance centres, psychology and psychiatric departments or similar government and non-governmental agencies, for specialized and regular individual therapy for every juvenile or child in the institution.

(7) A mental health care plan shall be developed for every juvenile or child by the child welfare officers in consultation with mental health experts associated with the institution and integrated into the individual care plan of the concerned juvenile or child.

(8) The recommendations of mental health experts shall be maintained in every case file and integrated into the care plan for every child.

(9) All care plans shall be produced before the Management Committee set up under rule 56 of these rules every month and before the Child Welfare Committee every quarter.

(10) No juvenile or child shall be administered medication for mental health problems without a psychological evaluation and diagnosis by appropriately trained mental health professionals.

48. Education.-

(1) Every institution shall provide education to all juveniles or children according to the age and ability, both inside the institution or outside, as per the requirement.

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(2) There shall be a range of educational opportunities including, mainstream inclusive schools, bridge school, open schooling, non formal education and learning and input from special educators where needed.

(3) Wherever necessary, extra coaching shall be made available to school going children in the institutions by encouraging volunteer services or tying up with coaching centers.

49. Vocational Training.-

(1) Every institution shall provide gainful vocational training to juveniles or children.

(2) The institutions shall develop networking with Institute of Technical Instruction, Jan Shikshan Sansthan, Government and Private Organization or Enterprises, Agencies or nongovernmental organisations with expertise or placement agencies.

50. Recreation facilities.-

(1) A provision of guided recreation shall be made available to all juveniles or children in the institutions.

(2) It shall include indoor and outdoor games, music, television, picnics and outings, cultural programmes and library.

51. Institutional Management of juveniles or children.-

(1) The following procedure shall be followed in respect of the newly admitted juveniles:

(a) receiving and search;

(b) disinfection and storing of juvenile's personal belongings and other valuables;

(c) bath and haircut (unless prohibited by religion);

(d) issue of toiletry items; new set of clothes, bedding and other outfit and equipment (as per scales);

(e) medical examination and treatment where necessary and in case of every juvenile suspected to be suffering from contagious or infectious diseases, mental ailments or addiction;.

(f) segregation in specially earmarked dormitories or wards or hospitals in case of a child suffering from contagious disease requiring special care and caution;

(g) attending to immediate and urgent needs of the juveniles like appearing in examinations, interview letter to parents, personal problems and verification by the Officer-in-charge of age of juvenile as per order of the Board.

(2) Every newly admitted juvenile or child shall be allotted a case worker from amongst the probation officers or child welfare officers or social workers or counselors attached to the institutions or voluntary social workers or counselors.

(3) Every newly admitted juvenile shall be familiarized with the institution and its functioning and shall receive orientation in the following areas:

(a) personal health, hygiene and sanitation;

(b) institutional discipline and standards of behaviour, respect for elders and teachers;

(c) daily routine, peer interaction, optimum use of developmental opportunities; and

(d) rights, responsibilities and obligations within the institution.

(4) The designated officer shall enter the name of the juvenile or child in the Admission Register and allocate appropriate accommodation facility.

(5) The photograph shall also be taken immediately for records and the case worker or probation officer or welfare officer shall begin the investigation and correspondence with the person, the juvenile or child might have named.

(6) The Officer-in-charge shall see that the personal belongings of the juvenile or child received by the institution is kept in safe custody and recorded in the Personal Belonging Register and the item must be returned to the juvenile or child when he leaves the institution.

(7) The girl juvenile or child shall be searched by a female member of the staff, and with due regard to decency and dignity of the juvenile or child.

(8) The educational level and vocational aptitude of the juvenile admitted, may be assessed on the basis of test and interview conducted by the teacher; the workshop supervisor and other technical staff and necessary linkages may also be established with outside specialists and community-based welfare agencies, psychologist, psychiatrist, child guidance clinic, hospital and local doctors, open school or Jan Sikshan Sansthan.

(9) A case history of the juvenile or the child admitted to an institution shall be maintained as per **Form XX**, which shall contain information regarding his socio-cultural and economic background and these informations may invariably be collected through all possible and available sources, including home, parents or guardians, employer, school, friends and community.

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(10) A well conceived programme of pre-release planning and follow up of cases discharged from special homes shall be organized in all institutions in close collaboration with existing governmental and voluntary welfare organizations.

(11) In the event of a juvenile or child leaving the institution without permission or committing an offence within the institution, the information shall be sent by the officer-incharge of the concerned institution to the police and the family, if known; and the detailed report of circumstances along with the efforts to trace the juvenile or child where the juvenile or child is missing, shall be sent to the Board or Committee, as the case may be.

(12) An individual care plan for every juvenile or child in institutional care shall be developed with the ultimate aim of the child being rehabilitated and re-integrated based on their case history, circumstances and individual needs and the individual care plan shall be based on following guidelines:

(a) the Officer-in-charge, counselor along with the child welfare officer or case worker, or social worker shall prepare an individual care plan for every child in an institution within one month of his admittance as per **Form-XXI**;

(b) all care plans shall include a plan for the juvenile's or child's restoration, rehabilitation, reintegration and follow-up;

(c) the care plan shall be reviewed quarterly by the Management Committee set up under rule 56 of these rules for appropriate development and rehabilitation including options for release or restoration to family or foster care or adoption;

(d) juveniles or children shall be consulted while determining their care plan;

(e) continuity of care plan shall be ensured in cases of transfer or repatriation or restoration.

52. Prohibited Articles.-

No person shall bring into the institution the following prohibited articles, namely:

(a) fire-arms or other weapons, whether requiring license or not (like knife, blades, lathi, spears and swords);

(b) alcohol and spirit of any description;

(c) bhang, ganja, opium or other narcotic or psychotropic substances;

(d) Bidi, cigarette, tobacco, Gutkha, Pan masala; or

(e) any other article specified in this behalf by the State Government by a general or special order.

53. Articles found on search and inspection.-

(1) The Officer-in-Charge shall see that every juvenile received in the institution is searched, his personal belongings inspected and money or any valuables found with the juvenile is kept in the safe custody of the Officer-in-Charge.

(2) The girls shall be searched by a female member of the staff and both the girls and boys shall be searched with due regard to decency and dignity.

(3) In every institution, a record of money, valuables and other articles found with a juvenile shall be maintained in the "Personal Belongings Register".

(4) The entries made in the Personal Belongings Register, relating to each juvenile, shall be read over to juvenile in the presence of a witness, whose signature shall be obtained in token of the correctness of such entries and it shall be countersigned by the Officer-in-Charge.

54. Disposal of articles.-

The money or valuables belonging to a juvenile received or retained in an institution shall be disposed of in the following manner, namely:

(a) on an order made by the competent authority in respect of any juvenile, directing the juvenile to be sent to an institution, the Officer-in-Charge shall deposit such juvenile's money together with the sale proceeds in the manner laid down from time to time in the name of the juvenile;

(b) the juvenile's money shall be kept with the Officer-in-Charge and valuables, clothing, bedding and other articles, if any, shall be kept in safe custody;

(c) when such juvenile is transferred from one institution to another, all his money, valuables and other articles, shall be sent along with the juvenile to the Officer-in-Charge of the institution to which he has been transferred together with a full and correct statement of the description and estimated value thereof;

(d) at the time of release of such juvenile, the valuables and other articles kept in safe custody and the money deposited in name of the juvenile shall be handed over to the parent or guardian, as the case may be, with an entry made in this behalf in the register and signed by the Officer-in-Charge;

(e) when a juvenile in an institution dies, the valuable and other articles left by the deceased and the money deposited in the name of the juvenile shall be handed over by the Officer-in-Charge to any person who establishes his claim thereto and executes an indemnity bond;

(f) a receipt shall be obtained from such person for having received such valuables and other articles and the amount;

(g) if no claimant appears within a period of six months from the date of death or escape of such juvenile, the valuables and other articles and amount shall be disposed of as per the decision taken by Management Committee set up under rule 56 of these rules.

55. Maintenance of case file.-

(1) The case file of each juvenile and child shall be maintained in the institution containing the following information:

(a) report of the person or agency who produced the juvenile before the Board;

(b) officer-in-charge's, probation officer's or child welfare officer's, counselor's and caseworkers reports;

(c) information from previous institution;

(d) report of the initial interaction with the juvenile, information from family members, relatives, community, friends and miscellaneous information;

(e) source of further information;

(f) observation reports from staff members;

(g) regular health status reports from Medical Officer, drug de-addiction progress reports, progress reports *vis-a-vis* psychological counseling or any other mental health intervention, where applicable;

(h) Intelligence Quotient (I.Q) testing, aptitude testing, educational or vocational tests;

(i) social history;

(j) summary and analysis by case-worker and Officer-in-charge;

(k) instruction regarding training and treatment programme and about special precautions to be taken;

(l) leave and other privileges granted;

(m) special achievements and violation of rules, if any, ;

(n) quarterly progress report;

(o) individual care plan, including pre-release programme, post release plan and follow-up plan as prescribed in **Form XXI**;

(p) leave of absence or release under supervision;

(q) final discharge;

(r) follow-up reports;

(s) annual photograph.

(t) case history duly filled in prescribed **Form XX**;

(u) follow-up report of post release cases as per direction of the competent authority if any; and

(v) remarks.

(2) All the case files maintained by the institutions and the Board or Committee shall, as far as possible, be computerized and networked so that the data is centrally available to the State and the District Child Protection Unit and the State Government.

56. Management Committee.-

(1) Every institution shall have a Management Committee for the management of the institution and monitoring the progress of every juvenile and child.

(2) In order to ensure proper care and treatment as per the individual care plans, a juvenile or child shall be grouped on the basis of age, nature of offence or kind of care required, physical and mental health and length of stay order.

(3) The Management Committee shall consist of the following personnel:

District Child Protection Officer (District Child Protection Unit)	- Chairperson
Officer-in-charge	– Member Secretary
Probation Officer or Child Welfare Officer or Case Worker	– Member
Medical Officer	– Member
Psychologist or Counselor	– Member
Workshop Supervisor or Instructor in Vocation	– Member
Teacher	– Member
Social Worker Member of Juvenile Justice Board or Child Welfare Committee	-- Member
A juvenile or child representative from each of the Children's Committees (on a monthly rotation basis to ensure representation of juveniles or children from all age groups)	- Member

(4) In the districts where District Child Protection Unit is not constituted the District Magistrate or Collector or his nominee shall be the Chairperson of this Committee.

(5) Where voluntary organizations are involved in providing professional and technical services like education, vocational training, psychosocial care, mental health

intervention and legal aid, the Management Committee may invite a representative of such voluntary organizations as a special invitee to the Management Committee meetings.

(6) (a) The Management Committee shall meet quarterly to consider and review.

(i) custodial care or care in the institution, housing, area of activity and type of supervision or interventions required;

(ii) medical facilities and treatment;

(iii) food, water, sanitation and hygiene conditions;

(iv) mental health interventions with the juveniles and children;

(v) individual problems of juveniles and children, provision of legal aid services and institutional adjustment, leading to the quarterly review of individual care plans;

(vi) vocational training and opportunities for employment;

(vii) education and life skills development programmes;

(viii) social adjustment, recreation, group work activities, guidance and counseling;

(ix) review of progress, adjustment and modification of residential programmes to the needs of the juveniles and children;

(x) planning post-release or post-restoration rehabilitation programme and follow up for a period of two years in collaboration with aftercare services;

(xi) pre-release or pre-restoration preparation;

(xii) release or restoration;

(xiii) post-release or post-restoration follow-up;

(xiv) minimum standards of care, including infrastructure and services available;

(xv) daily routine;

(xvi) community participation and voluntarism in the residential life of children such as education, vocational activities, recreation and hobby;

(xvii) oversee that all registers as required under the Act and rules are maintained by the institution, check and verify these registers, duly stamped and signed in the review meetings;

(xviii) matters concerning the Children's Committees;

(xix) any other matter which the Officer-in-Charge may like to bring up.

(b) The officer-in-charge or child welfare officer shall file a quarterly progress report of every juvenile or child in the case file and send a copy to the District Child Protection Unit and Board or Committee, as the case may be.

(7) The Management Committee shall set up a complaint and redress mechanism in every institution and a Children's Suggestion Box shall be installed in every institution at a place easily accessible to juveniles and children away from the office set up and closer to the residence or rooms or dormitories of the children.

(8) (a) The Children's Suggestion Box, whose key shall remain in the custody of the Chairperson of the Management Committee, shall be checked every week by the Chairperson of the Management Committee or his representative from District Child Protection Unit, in the presence of the members of the Children's Committees.

(b) If there is a problem or suggestion that requires immediate attention, the Chairperson of the Management Committee shall call for an emergency meeting of the Management Committee to discuss and take necessary action.

(c) The quorum for conducting the emergency meetings shall be five members, including two members of Children's Committees, Chairperson of the Management Committee, Member of Committee or the Board as the case may be and the Officer-in-Charge of the institution.

(d) In the event of a serious allegation or complaint against the Officer-in-Charge of the institution, he shall not be part of the emergency meeting and another available member of the Management Committee shall be included in his place.

(e) All suggestions received through the suggestion box and action taken as a result of the decisions made in the emergency meeting or action required to be taken shall be placed for discussion and review in the monthly meeting of the Management Committee.

(9) A Children's Suggestion Book shall be maintained in every institution where the complaints and action taken by the Management Committee are duly recorded and such action and follow up shall be communicated to the Children's Committees after every monthly meeting of the Management Committee.

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(10) The Board or Committee shall review the Children's Suggestion Book at least once in three months.

57. Children's Committees.-

(1) Officer-in-Charge of every institution for juveniles or children shall facilitate the setting up of Children's Committees for three different age groups of children, viz., 6-10 years, 11-15 years and 16-18 years and these Children's Committees shall be constituted solely by children.

(2) Such Children's Committee shall be encouraged to participate in following activities:

(a) improvement of the condition of the institution;

(b) reviewing the standards of care being followed;

(c) preparing daily routine and diet scale;

(d) developing educational, vocational and recreation plans;

(e) supporting each other in managing crisis;

(f) reporting abuse and exploitation by peers and caregivers;

(g) creative expression of their views through wall papers or newsletters or paintings or music or theater;

(h) management of institution through the Management Committee.

(3) The Officer-in-Charge shall ensure that the Children's Committees meet every month and maintain a register for recording its activities and proceedings, and place it before the Management Committee in their quarterly meetings.

(4) The Officer-in-Charge shall ensure that the Children's Committees are provided with essential support and materials including stationary, space and guidance for effective functioning.

(5) The Officer-in-Charge shall, as far as possible, seek assistance from local voluntary organization or child participation experts for the setting up and functioning of the Children's Committees.

(6) The local voluntary organization or child participation expert shall support the Children's Committees in the following:

(a) selecting their leaders;

(b) conducting the monthly meetings;

(c) developing rules for the functioning of Children's Committees and following it;

(d) maintaining records and Children's Suggestion Book and other relevant documents;

(e) any other innovative activity.

(7) The Management Committee shall seek a report from the Officer-in-Charge on the setting up and functioning of the Children's Committees, review these reports in their monthly meetings and take necessary action where required.

58. Rewards and Earnings.-

The rewards to a juvenile or child, at such rates as may be fixed by the management of the institution from time to time, may be granted by the Officer-in-Charge as an encouragement to steady work and good behaviour; and at the time of release, the reward shall be handed over after obtaining a receipt from the parent or the guardian who comes to take charge of the juvenile or child or juvenile or child himself.

59. Visits to and communication with juveniles or children.-

(1) The parents and relatives of the juveniles or children shall be allowed to visit once in a month or in special cases, more frequently at the discretion of the Officer-in-Charge as per the visiting hours laid down by him, except where parents or relatives or guardian have been found to be responsible for subjecting the juvenile or child to violence, abuse and exploitation.

(2) The receipt of letters by the juveniles or children of the institution shall not be restricted and they shall have freedom to write as many letters as they like at all reasonable times; and the institution shall ensure that where parents, guardians or relatives are known, at least one letter is written by the juvenile or children every month for which the postage shall be provided by the institution.

(3) The Officer-in-Charge may peruse any letter written by or to the juvenile or children, and may for the reasons that he considers sufficient refuse to deliver or issue the letter and forward it to the Committee after recording his reasons in a book maintained for the purpose.

(4) The Officer-in-Charge shall, in special circumstances or as per orders of the Board or Committee, allow a juvenile or child to make telephonic communication with his parents or guardians or relatives.

60. Death of a juvenile or child.-

On the occurrence of any case of death or suicide in an institution the procedure to be adopted shall be as under: -

(1) In the event of an unnatural death or suicide of a juvenile or child in an institution it is imperative for the institution to ensure that an inquest and post-mortem examination is held at the earliest.

(2) In case of natural death or due to illness of a juvenile or child, the Officer-in-charge shall obtain a report of the Medical Officer stating the cause of death and a written intimation about the death shall be given immediately to the nearest Police Station, the Board or Committee, the National or State Commission for Protection of Child Rights, District Child Protection Unit or State Child Protection Unit or any other concerned authority and the parents or guardians or relatives of the juvenile or child.

(3) Whenever a sudden or violent death or death from suicide or accident takes place, immediate information shall be given by the case-worker or probation officer or welfare officer to the Officer-in-Charge and the Medical Officer and the Officer-in-Charge shall immediately inform the nearest police station, Board or Committee and parents or guardians or relatives of the deceased juvenile or child.

(4) If a juvenile or child dies within twenty four hours of his admission to the institution, the Officer-in-charge of the institution shall report the matter to the officer-in-charge of the Police Station having jurisdiction and the District Medical Officer or the nearest Government hospital and the parents or guardians or relatives of such juvenile or child without delay.

(5) The Officer-in-charge shall also immediately give intimation to nearest Magistrate empowered to hold inquests and to the Board or as the case may be the Committee.

(6) The Officer-in-Charge and the Medical Officer at the institution shall record the circumstances of the death of the child and send a report to the concerned Magistrate, the Officer-in-charge of the police station having jurisdiction, the Committee and the District Medical Officer or the nearest Government hospital where the dead body of the juvenile or child is sent for examination, inspection and determination of the cause of death and the Officer-incharge and the Medical Officer shall also record in writing their views on the cause of the death if any, and submit it to the concerned Magistrate and the Officer-in-charge of the police station having jurisdiction.

(7) The officer-in-charge and the Medical Officer shall make themselves available for any inquiries initiated by the police or the Magistrate concerning the cause of death and other details regarding such juvenile or child.

(8) As soon as the inquest is held, the body shall be handed over to the parents or guardian or relatives or, in the absence of any claimant, the last rituals shall be performed under the supervision of the officer-in-charge in accordance with the known religion of the juvenile or child.

61. Abuse and exploitation of the juvenile or child.-

(1) Every institution shall have systems of ensuring that there is no abuse, neglect and maltreatment and this shall include the staff being aware of what constitutes abuse, neglect and maltreatment as well as early indicators of abuse, neglect and mal treatment and how to respond to these.

(2) In the event of any physical, sexual or emotional abuse, including neglect of juveniles and children in an institution by those responsible for care and protection, the following action shall be taken:

(i) the incidence of abuse and exploitation must be reported by any staff member of the institution immediately to the Officer-in-Charge on receiving such information.

(ii) when an allegation of physical, sexual or emotional abuse comes to the knowledge of the Officer-in-Charge, a report shall be placed before the Board or Committee, who in turn, shall order for special investigation.

(iii) the Board or Committee shall direct the local police station or Special Juvenile Police Unit to register a case, take due cognizance of such occurrences and conduct necessary investigations;

(iv) the Board or Committee shall take necessary steps to ensure completion of all inquiry and provide legal aid as well as counseling to the Juvenile or child victim;

(v) the Board or Committee shall transfer such a juvenile or child to another institution or place of safety or fit person;

(vi) the Officer-in-charge of the institution shall also inform the chairperson of the management committee and place a copy of the report of the incident and subsequent action taken before the management committee in its next meeting;

(vii) in the event of any other crime committed in respect of juveniles or children in institution, the Board or Committee shall take cognizance and arrange for necessary investigation to be carried out by the local police station or Special juvenile Police Unit;

(viii) the Board or Committee may consult Children's committee setup in each institution to enquire into the fact of abuse and exploitation as well as seek assistance from relevant voluntary organizations, child rights experts, mental health experts or crisis intervention centers in dealing with matters of abuse and exploitation of juveniles or children in an institution.

62. Juvenile or Child suffering from dangerous diseases or mental health problems.-

(1) When a juvenile or a child placed under the care of a fit person or a fit institution under the provisions of the Act, is found to be suffering from a disease or physical or mental health problems requiring prolonged medical treatment, or is found addicted to a narcotic drug or psychotropic substance, the juvenile or the child may be sent by an order of the competent authority to an appropriate place for such period as may be certified by medical officer to be necessary for proper treatment of the juvenile or the child or for the remainder of the term for which he has to stay.

(2) When the juvenile or the child is cured of the disease or physical or mental health problems, the competent authority may, if the juvenile or child is still liable to stay, order the juvenile or the child to be placed back in the care of fit person or institution from where the juvenile or child was removed for treatment and if the

juvenile or the child is no longer liable to be kept under the care of fit person or institution, the competent authority may order him to be discharged.

(3) The order of restoration of a juvenile or a child suffering from an infectious or contagious disease to his parents or guardian shall be based on the principle of best interest of the juvenile or child, keeping in mind the risk of stigmatization and discrimination and discontinuation of treatment.

(4) Where there is no organization either within the jurisdiction of the competent authority, or nearby District or State for care and protection of juveniles or children suffering from serious psychiatric or physical disorder and infection, as required under section 58 of the Act, necessary organization shall be set up by the State Government at such places, as it may deem fit to cater to the special needs of such juveniles or children.

63. Leave of absence of a juvenile or child.-

(1) A juvenile or child in an institution may be allowed to go on leave of absence or released under supervision for examination or admission, special occasions like marriage or emergencies like death or accident or serious illness in the family.

(2) While the leave of absence for short period generally not exceeding seven days excluding the journey time may be recommended by the Officer-in-charge, but grating of such leave shall be by the Board or Committee.

(3) The parents or guardian of the juvenile or the Officer-in-charge on behalf of the juvenile or child may submit an application to the Board or Committee requesting for relieving the juvenile or child on leave, stating clearly the purpose for the leave and the period of leave.

(4) While considering the application of leave of absence, the Board or Committee shall hear the juvenile or child or the parents or guardians of the juvenile or child and if the Board or Committee considers that granting of such leave is in the interest of the juvenile or child, appropriate order shall be made and the Board or Committee. may call for a report from the probation officer or child welfare officer in case the preliminary information gathered from the juvenile or child or concerned parent or guardian is not sufficient for the purpose.

(5) While issuing orders sanctioning the leave of absence or relieving under supervision, as the case may be, the competent authority shall mention the period of leave and the conditions attached to the leave order, and if any of these conditions are not complied with during the leave period, the juvenile or child may be called back to the institution.

(6) The parent or guardian shall arrange to escort the juvenile or child from and to the institution and where this is not possible, the Officer-in-charge may arrange to

escort the juvenile or child to the place of the family and back. In case the parents or guardian is willing to arrange escort but does not have requisite financial means, the Officer-in-charge shall arrange for the traveling expenses as admissible under the rules.

(7) If the juvenile or child runs away from the family during the leave period, the parent or guardian is required to inform the Officer-in-charge of the institution immediately, and try to trace the juvenile or child and if found, the juvenile or child shall be brought back to the institution immediately.

(8) If the juvenile or child is not found within twenty four hours, the Officer-in-Charge shall report the matter to the nearest police station and missing person's bureau, but no adverse disciplinary action shall be taken against the juvenile or child and procedure laid down under the Act shall be followed.

(9) If the parent or guardian does not take proper care of the juvenile or child during the leave period or does not bring the juvenile or child back to the institution within the stipulated period, such leave may be refused on later occasions.

(10) If the juvenile or child does not return to the institution on expiry of the sanctioned leave, the Board or Committee shall refer the case to police for taking charge of the juvenile and bring him back to the institution.

(11) The period of such leave shall be counted as a part of the period of stay in the institution and the time which elapses after the failure of a juvenile to return to the institution within the stipulated period, shall be excluded while computing the period of his stay in the institution.

64. Inspection.-

(1) The State Government shall constitute State, District or city level inspection committee on the recommendation of the Selection Committee constituted under rule 92 of these rules.

(2) The inspection committees shall visit and oversee the conditions in the institutions and appropriateness of the processes for safety, well being and permanence, review the standards of care and protection being followed by the institutions, look out for any incidence of violation of child rights, look into the functioning of the Management Committee and Children's Committee set up under rules 56 and 57 of these rules and give appropriate directions.

(3) The team shall also make suggestions for improvement and development of the institution.

(4) The team shall consist of a minimum of five members with representation from the State Government, the Board or Committee, the State Commission for the

Protection of Child Rights or the State Human Rights Commission, medical and other experts, voluntary organizations and reputed social workers.

(5) The inspection shall be carried out at least once in every three months.

(6) The inspection visit shall be carried out by not less than three members.

(7) The team may visit the institutions either by prior intimation or make a surprise visit.

(8) The team shall interact with the children during the visits to the institution, to determine their well-being and uninhibited feed back.

(9) The follow up action on the findings and suggestion of the children shall be taken by all concerned authorities.

(10) The action taken report, findings and suggestions from the Inspection Committee shall be sent to the District Child Protection Unit and the State Government.

65. Social Audit.-

(1) The State Government shall monitor and evaluate the implementation of the Act annually by reviewing matters concerning establishment of Board or Committee or Special Juvenile Police Unit where required, functioning of Board or Committee or Special Juvenile Police Unit, functioning of institutions and staff, functioning of adoption agencies, child friendly administration of juvenile justice and any other matter concerning effective implementation of the Act in the State.

(2) The social audit shall be carried out with support and involvement of organizations working in the field of mental health, child care and protection and autonomous bodies like the National Institute of Public Co-operation and Child Development, Indian Council for Child Welfare, Childline India Foundation, Central and State level Social Welfare Boards, School of Social Work and School of Law.

66. Restoration and Follow-up.-

(1) The order for restoration of the juvenile or child shall be made by the Board or Committee on the basis of a fair hearing of the juvenile or child and his parents or guardian, as well as on the reports of the Probation Officers or Child Welfare Officers or non-governmental organizations directed by the Board or Committee to conduct the home study and any other relevant document or report brought before the Board or Committee for deciding the matter.

(2) The Board or Committee shall send a copy of the restoration order along with a copy of the order for escort as per **Form XXII** to the District Child Protection Unit or State Government who shall provide funds for restoration of the juvenile or child.

(3) Every restoration shall be planned for as part of the individual care plans prepared by the case-workers or counselors or child welfare officers or probation officer, as the case may be, and shall be based on the review and recommendations of the Management Committee set up under rule 56 of these rules.

(4) Besides police, the Board or Committee shall seek collaboration with non-governmental organizations to accompany juveniles or children back to their family for restoration.

(5) In case of girls, the juvenile or child shall necessarily be accompanied by female escorts.

(6) The expenses incurred on restoration of a juvenile or child, including travel and other incidental expenses, shall be borne by the District Child Protection Unit or State Government.

(7) When a juvenile or child expresses his unwillingness to be restored back to the family, the Board or Committee shall make a note of it in its records in writing and such juvenile or child shall not be coerced or persuaded to go back to the family, particularly if the social investigation report of the child welfare officer or probation officer establishes that restoration to family may not be in the best interest of the juvenile or child or, if the parents or guardians refuse to accept the juvenile or child back.

(8) A follow-up plan shall be prepared as part of the individual care plans by the Child Welfare Officers or Probation Officers or non-governmental organisations assigned by the Board or Committee to assist in restoration of the child.

(9) A quarterly follow-up report shall be submitted to the Board or Committee by the concerned Child Welfare Officer or Probation Officer or non-governmental organisation for a period of two years with a copy to the officer-in-charge of the institution from where the juvenile or child is restored.

(10) The follow-up report shall clearly state the situation of the juvenile or child post restoration and the juvenile's or child's needs to be met by the State Government in order to reduce further vulnerability of the juvenile or child.

(11) The officer-in-charge shall file the follow-up report in the case-file of the juvenile or child and place the report before the management committee set up under rule 56 of these rules in its next meeting.

(12) The officer-in-charge shall also send a copy of the follow-up reports to the District Child Protection Unit.

(13) Where a follow-up is not possible due to unavailability of government functionaries or non-governmental organizations, the concerned District Child

Protection Unit shall provide necessary assistance and support to the concerned Board or Committee.

67. Visitor's Book.-

(1) A Visitor's Book shall be maintained, in every institution, in which the person visiting the home shall record the date of his visit with remarks or suggestions, which he may think proper.

(2) The Officer- in-charge shall forward a copy of every such entry to the District Child Protection Unit or State Government, with such remarks as he may desire to offer in explanation or otherwise; and thereon, the designated authority shall issue such orders as he may consider necessary.

68. Maintenance of Registers.-

The Officer-in-charge shall maintain in his office, such registers and forms, as required by the Act and as specified by these rules made there under and the list of registers or files or books to be maintained shall minimally comprise of:

(a) Admission and discharge register;

(b) Supervision register;

(c) Medical file or medical report;

(d) Nutrition diet file;

(e) Stock register;

(f) Log book;

(g) Order book;

(h) Meeting book;

(i) Cash book;

(j) Budget statement file;

(k) Inquiry report file;

(l) Individual case file with individual care plan;

(m) Children's Suggestion book;

(n) Visitor's book;

(o) Staff movement register;

(p) Personal belongings register;

(q) Minutes register of Management Committee;

(r) Minutes register of Children's Committees; and

(s) Attendance registers for staff and juveniles or children.

(4) New Staff shall be recruited as per the rule which the State Government may decide from time to time.

69 Parsonnel or Staff of a Home:-

(1) The number of posts in each category of staff shall be fixed on the basis of capacity of the institution; and the staff shall be appointed in accordance with the educational qualifications, training and experience required for each category.

(2) The number of posts in each category of counselor, case worker or probation officer, house father or mother, educator, and vocational instructor shall proportionally increase with the increase in the capacity of the institution.

(3) In case of institutions housing infants, provision for *ayahs* and paramedical staff shall be made as per the need.

(4) New staff shall be recruited as per the rule which the State Government may decided from time to time.

CHAPTER VII

MISCELLANEOUS

70. Recognition of fit persons or fit institution.-

(1) Any individual who is willing temporarily to receive a juvenile or child in need of care, protection or treatment for a period as may be necessary, may be recognized by the competent authority as a fit person after due verification of their credentials and reputation.

(2) Any suitable place or institution, the manager of which is willing temporarily to receive a juvenile or child in need of care and protection for a period as may be necessary, may be recognized by the State Government as a fit institution on the recommendation of the competent authority.

(3) An institution recognized as a fit institutions shall,-

(a) meet the standards of care laid down in the Act and the rules made thereunder;

(b) have the capacity and willingness to meet the standards of care laid down in the Act and the rules;

(c) receive and provide basic services for care and protection of the juvenile and children;

(d) prevent subjection of juvenile or child to any form of cruelty or exploitation or neglect; and

(e) abide by the orders of the competent authority.

(4) A list of fit institutions approved by the State Government shall be kept in the office of the Board and the Committee.

(5) A fit institution with collateral branches may send the juvenile or child placed therein by an order of the competent authority to any of its branches after seeking permission from the competent authority.

(6) Before declaring any person as a fit person or recommending an institution as a fit institution, the competent authority shall hold due enquiry and only on being satisfied, recognition shall be given.

71. Certification or recognition and transfer of Management of Institutions and after care organizations.-

(1) Any organization desiring certification under the Act shall make an application together with a copy each of the rules, bye-laws articles of association, list of members of the society or the association running the organization, office bearers and a statement showing the status and past record of specialized childcare services

provided by the organization, to the State Government, who shall after verifying the provisions made in the organization for the boarding and lodging, general health, educational facilities, vocational training and treatment services may grant certification or recognition under sections 8, 9, 34, 37, 41 and 44 of the Act, as the case may be, on the condition that the organization shall comply with the standards or services as laid down under the Act and the rules framed their under, from time to time and to ensure an all round growth and development of juvenile or child placed under its charge.

(2) Any organization desiring recognition under the Act shall make an application to the competent authority, who shall after due inquiry, recommend to State Government for grant or refuse such recognition.

(3) The State Government may, transfer the management of any institution State run under institution under the Act to a voluntary organization of repute, who has the capacity to run such an institution; and certify or recognize the said voluntary organization as a fit institution to own the requisite responsibilities under a Memorandum of Understanding for a specified period of time.

(4) The State Government may, if dissatisfied with the conditions, rules, management of the organization certified or recognized under the Act, at any time, by notice served on the manager of the organization, declare that the certificate or recognition of the organization, as the case may be, shall stand withdrawn as from a date specified in the notice and from the said date, the organization shall cease to be an organization certified or recognised under sections 8, 9, 34, 37,41 or 44 of the Act, as the case may be :

Provided that the concerned organization shall be given an opportunity of making a representation in writing, within a period of thirty days, against the grounds of withdrawal of certificate or recognition of that organization.

(5) The decision to withdraw or to restore the certificate or recognition of the organization may be taken, on the basis of a thorough investigation by a Specially Constitute advisory Board under section 62 of the Act,

(6) On the report of the advisory Board, the officer in-charge of the institution shall be asked to show cause so as to give an explanation within thirty days.

(7) When an organization ceases to be an organization, certified or recognised under sections 8, 9, 34, 37,41 or 44 of the Act, the juvenile or the child kept therein shall, be transferred to some other institution of repute, certified or recognized under sections 8, 9, 34, 37,41 or 44 of the Act or discharged, in accordance with the provisions of the Act and the rules relating to their discharge and transfer by giving intimation of such discharge or transfer to the Board or the Committee, as the case may be.

72. Registration under the Act.-

(1) All institutions and organizations running institutional or non-institutional care services for children in need of care and protection, whether run by the government or voluntary organization, shall get themselves registered under sub-section (3) of section 34 of the Act.

(2) All such institutions shall make an application together with a copy each of rules, bye-laws, memorandum of association, list of governing body, office bearers, balance sheet of past three years, statement of past record of social or public service provided by the institution or organization to the State Government, who shall after verifying that provisions made in the institution or organization for the care and protection of children, health, education, boarding and lodging facilities, if any, vocational facilities and scope of rehabilitation, may issue a registration certificate to such organization under sub-section (3) of section 34 of the Act and as per this rule.

73. Grant in aid to certified or recognized organization.-

(1) An organization certified or recognized or registered under sections 8, 9, 34, sub-section (3) of section 34, 37 or 44 of the Act, may during the period when certification or recognition or registration is in force, may apply for grants-in-aid by the State Government, for the maintenance of juvenile or child received by them under the provisions of the Act; and for expenses incurred on their education, treatment, vocational training, development and rehabilitation.

(2) The Grant-in-aid may be admissible at such rates as prevalent under grant in aid code of Social Defence Department.

(3) In case of transfer of management of government run homes under sections 8, 9, 34, sub-section (3) of section 34, 37 and 44 of the Act to a voluntary organization, the Voluntary organizations shall be eligible to Grant in Aid for institutions as per provisions made in Grant in Aid code.

74. Admission of outsiders.-

(1) No stranger shall be admitted to the premises of the institution, except with the permission of the Officer- in-charge or on an order from the Board or Committee.

(2) In special cases, where parents or guardians have travelled a long distance from another state or district, the Officer-in-Charge shall allow parents or guardians entry into the premises and a meeting with their children, provided they possess proper identification and are not reported to have subjected the juvenile or child to abuse and exploitation.

75. Identity Photos.-

(1) On admission to a home established under the Act, every juvenile or child shall be photographed

(2) One photograph shall be kept in the case file of the juvenile or the child, one shall be fixed with the index card, a copy shall be kept in an album serially numbered, with the negative in another album and a copy of the photograph shall be sent to the Board or Committee, as the case may be, as well as to the district or State Child Protection Unit.

(3) In case of a child missing from an institution or in case of lost children received by an institution, a photograph of the child with relevant details shall be sent to the missing person's bureau and the local police station.

76. Police Officers to be in plain clothes.-

While dealing with a juvenile or a child under the provisions of the Act and the rules made thereunder, except at the time of arrest, the Police Officer shall wear plain clothes and not the police uniform.

77. Prohibition on the use of handcuffs and fetters.-

No child or the juvenile in conflict with law dealt with under the provisions of the Act and the rules made there under shall be handcuffed or fettered.

78. Procedure to be followed by a Magistrate not empowered under the Act.-

(1) When any juvenile or child is produced before a Magistrate other than Board or Committee, and the Magistrate is of the opinion that such person is a juvenile or child, he shall record his reasons and send the juvenile or child to the appropriate competent authority.

(2) In case of a juvenile produced before a Magistrate not empowered under this Act, such Magistrate shall direct the case to be transferred to the Board for inquiry and disposal.

(3) In case of a child in need of care and protection produced as a victim of a crime before a Magistrate not empowered under the Act, such Magistrate shall transfer the matter concerning care and protection, rehabilitation and restoration of the child to the appropriate Committee.

79. Transfer.-

(1) During the inquiry, if it is found that the juvenile or child hails from a place outside the jurisdiction of the Board or Committee, the Board or Committee shall order the transfer of the juvenile or child and send a copy of the order to the State or District Child Protection Unit.

Provided that :

(i) such transfer is in the best interest of the juvenile or child;

(ii) no child shell be transferred or proposed only on the ground that the child has created problems or, has become difficult to be managed in the existing institution or, is suffering from a chronic or terminal illness or, on account of disability;

(iii) such transfer shall only take place after the completion of evidence and cross examination that may be required in a legal proceeding involving a juvenile or child; and

(iv) the reasons for and circumstances of such transfer are recorded in writing.

(2) The State Government or State or District child protection Unit shall accordingly:

(i) send the information of transfer to the appropriate competent authority having jurisdiction over the area where the child is ordered to be transferred by the Board or Committee; and

(ii) send a copy of the information of transfer to the Officer-in-charge of the institution where the child is placed for care and protection at the time of the transfer order.

(3) On receipt of copy of the information of the State Government or State or District Child Protection Unit, the Officer-in-charge shall arrange to escort the child at government expenses to the place or person as specified in the order.

(4) On such transfer, case file and records of the juvenile or child shall be sent along with the juvenile or child.

80. Procedure for sending a juvenile or child outside the jurisdiction of the competent authority

(1) In the case of a juvenile or a child whose ordinary place of residence lies outside the jurisdiction of the competent authority, and if the competent authority considers it necessary to take action under section 50 of the Act, it shall direct a probation officer or case worker or child welfare officer, as the case may be, to make enquiries as to the fitness and willingness of the relative or other person to receive the juvenile or the child at the ordinary place of residence, and whether such relative or other fit person can exercise proper care and control over the juvenile or the child.

(2) Where a juvenile or child is ordered to be sent to the ordinary place of residence or to a relative or fit person, execution of a bond by the juvenile or child

without any surety, in **Form VI**, is necessary along with an undertaking by the said relative or fit person in **Form V or IX** as the case may be.

(3) Any breach of a bond or undertaking or of both given under sub-rule (2) of this rule, shall render the juvenile liable to be brought before the competent authority, who may make an order directing the juvenile to be sent to an institution home.

(4) Any juvenile or a child, who is a foreign national and who has lost contact with his family shall also be entitled for protection.

(5) The juvenile or the child, who is a foreign national, shall be repatriated, at the earliest, to the country of his origin in co-ordination with the respective Embassy or High Commission.

(6) The Board or Committee shall keep the Ministry of External Affairs informed about repatriation of every juvenile or child of foreign nationality carried out on the orders of the Board or Committee.

(7) A copy of the order passed by the competent authority under section 50 of the Act shall be sent to-

(a) the probation officer or child welfare officer who was directed to submit a report under sub-rule (1) of this rule;

(b) the probation officer or child welfare officer, if any, having jurisdiction over the place where the juvenile or the child is to be sent;

(c) the competent authority having jurisdiction over the place where the juvenile or the child is to be sent; and

(d) the relative or the person who is to receive the juvenile or the child.

(8) During the pendency of the order under sub-rule (6) of this rule, the juvenile or the child shall be sent by the competent authority to an observation home or children's home as the case may be.

(9) Where the competent authority considers it expedient to send the juvenile or the child back to his ordinary place of residence under section 50, the competent authority shall inform the relative or the fit person, who is to receive the juvenile or the child accordingly; and shall invite the said relative or fit person to come to the home, to take charge of the juvenile or the child on such date, as may be specified by the competent authority.

(10) The competent authority inviting the said relative or fit person under sub-rule (8) of this rule may also direct, if necessary, the payment to be made by the Officer-in-charge of the home, of the actual expenses of the relative or fit person's journey both ways, by the appropriate class and the juvenile's or child's journey from

the home to his ordinary place of residence, at the time of sending the juvenile or the child.

(11) If the relative or the fit person fails to come to take charge of the juvenile or the child on the specified date, the juvenile or the child shall be taken to his ordinary place of residence by the escort of the observation home and in the case of a girl, at least one escort shall be a female.

81. State Child Protection Unit.-

(1) The specific functions of the State Child Protection Unit shall include:

(a) implementation of the Act and supervision and monitoring of agencies and institutions under the Act;

(b) set up, support and monitor the District Child Protection Units;

(c) represent State Child Protection Unit as a member in the Selection Committee for appointment of members of Boards or Committees;

(d) make necessary funds available to the District Child Protection Units for providing or setting up required facilities to implementation the Act;

(e) network and co-ordinate with all government departments to build inter-sectoral linkages on child protection issues, including Departments of Health, Education, Social Welfare, Urban Basic Services, Backward Classes & Minorities, Youth Services, Police, Judiciary, Labour, State AIDS Control Society, among others;

(f) network and co-ordinate with civil society organizations working for the effective implementation of the Act;

(g) training and capacity building of all personnel (Government and Non-government) working under the Act;

(h) establish Minimum Standards of Care and ensure its implementation in all institutions set up under the Act;

(i) review of the functioning of Committees; and

(j) all other functions necessary for effective implementation of the Act.

(2) The State Child Protection Unit shall be integral part of the Directorate of Social Defence, and shall submit a monthly report of their observations and suggestions to their respective heads.

82. District Child Protection Unit.-

(1) The District Child Protection Unit shall coordinate and implement all child rights and protection activities at district level.

(2) The specific functions of the District Child Protection Unit shall include:

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(a) ensure effective implementation of the Act at district or city levels by supporting creation of adequate infrastructure, such as, setting up Boards, Committees, Special Juvenile Police Units and homes in each districts;

(b) identify families at risk and children in need of care and protection;

(c) assess the number of children in difficult circumstances and creating district-specific databases to monitor trends and patterns of children in difficult circumstances;

(d) periodic and regular mapping of all child related services at district for creating a resource directory and making the information available to the Committees and Boards from time to time;

(e) implement family based non-institutional services including sponsorship, foster care, adoption and after care;

(f) ensure setting up of District, Block and Village level Child Protection Committees for effective implementation of programmes as well as discharge of its functions;

(g) facilitate transfer of children at all levels for either their restoration to their families or placing the child in long or short-term rehabilitation through institutionalization, adoption, foster care and sponsorship;

(h) supporting State Adoption Resource Agency in implementation of family based non-institutional services at district level;

(i) network and co-ordinate with all government departments to build inter-sectoral linkages on child protection issues, including Departments of Health, Education, Social Welfare, Urban Basic Services, Backward Classes & Minorities, Youth Services, Police, Judiciary, Labour, State AIDS Control Society, among others;

(j) network and co-ordinate with civil society organizations working under the Act;

(k) develop parameters and tools for effective monitoring and supervision of agencies and institutions in the district in consultation with experts in child welfare;

(l) supervise and monitor all institutions or agencies providing residential facilities to children in district;

(m) train and build capacity of all personnel (Government and Non-government) implementing the Act to provide effective services to children;

(n) organize quarterly meeting with all stakeholders at district level including CHILDLINE, Specialised Adoption Agencies, Officer-in-charges of homes,

non-governmental organisations and members of public to review the progress and implementation of the Act; and

(o) liaison with the State Child Protection Unit, State Adoption Resource Agency at State level and District Child Protection Units of other districts.

83. Setting of the Child Welfare Committee.-

(1) The State Government shall set up by notification in Official Gazette Child Welfare Committees under section 29 of the Act in every district with requisite infrastructure, personnel, and finances for smooth running, as listed below:

(a) the infrastructure shall consist of a sitting hall, a separate room for the Committee, room for office staff, waiting room for children, waiting room for parents or guardian, room for personal interaction between the child or parents and the Committee, a record room, safe drinking water facility and toilets;

(b) the State Government shall provide necessary human resource support for every Committee, including welfare officer, steno-typist or computer operator, peon, safai karamchari.

(2) The allowances of the Chairperson and Members shall be disbursed by the District Child Protection Unit or State Government as per rule 23 of these rules.

84. Setting up of Juvenile Justice Board.-

The State Government shall set up by notification in Official Gazette, Juvenile Justice Board in every district, with requisite infrastructure, personnel, besides the Principal Magistrate and Members and Finances as listed below:

(a) Infrastructure shall consist of a Board Room, waiting room for children, a room for Principal Magistrate and Members, a record room, room for Probation Officers, waiting room for parents and visitors, safe drinking water facility and toilets.

(b) The State Government shall provide necessary human resource support for every Board, including probation officer, steno-typist or computer operator, peon, safai karamchari.

85. Special Juvenile Police Unit.-

(1) The State Government shall appoint a Special Juvenile Police Unit at the District level within four months of the notification of these rules and the unit shall consist of a juvenile or child welfare officer of the rank of police inspector and two paid social workers having experience of working in the field of child welfare, of whom one shall be a woman.

(2) The District Child Protection Unit or the State Government shall provide services of its two social workers to the Special Juvenile Police Unit for discharging their duties.

(3) The juvenile or child welfare officer at the police station shall be a person with aptitude and appropriate training and orientation to handle the cases of juveniles or children in terms of the provisions of the Act.

(4) The transfer and posting of the designated Juvenile or Child Welfare Officer shall be within the Special Juvenile Police Units of other police stations or district unit, unless there is an exceptional case of promotion and in such cases, other police officer must be designated and deputed in the unit so that there is no shortfall.

(5) Special Juvenile Police Unit at district level shall co-ordinate and function as a watch-dog for providing legal protection against all kinds of cruelty, abuse and exploitation of child or juvenile.

(6) The unit shall take serious cognizance of adult perpetrators of crimes against children and see to it that they are without delay apprehended and booked under the appropriate provisions of the law and for this purpose the district level units shall maintain liaison with other units of police station.

(7) The Special Juvenile Police Units shall seek assistance from the voluntary organizations, panchayats and gramsabhas or Resident Welfare Associations in identifying juveniles in conflict with law as well as reporting cases of violence against children, child neglect and child abuse.

(8) The Special Juvenile Police Units shall particularly seek assistance from voluntary organizations recognized as protection agencies by the State Government for the purpose of assisting Special Juvenile Police Units and local police stations at the time of apprehension, in preparation of necessary reports, for taking charge of juveniles until production and at the time of production before the Board as per rule 11 (12) of these rules.

(9) The Superintendent of Police in a district shall head the Special Juvenile Police Unit and oversee its functioning from time to time.

(10) A Nodal Officer from Police not less than the rank of Inspector General of Police shall be designated in each State to co-ordinate and upgrade role of police on all issues pertaining to care and protection of children or juveniles under Act.

(11) Any police officer found guilty, after due inquiry, of torturing a child, mentally or physically, shall be liable to be removed from service, besides being prosecuted for the offence.

86. Honorary or Voluntary Welfare Officers and Probation Officers.-

To augment the existing probation service, honorary or voluntary welfare officers and probation officers may be appointed from the voluntary organization and social workers found fit for the purpose by the competent authority and their services may also be co-opted into the implementation machinery by the orders of the competent authority.

87. Duties of the Officer-in-Charge of an institution.-

(1) The Officer-in-charge shall have the primary responsibility of maintaining the institution and shall stay within the institutional premises to be readily available as and when required by the juveniles or children and the staff and in case where an accommodation is not available within the institutional premises, the Officer-in-charge shall stay at a place in close proximity to the institution till such time that such an accommodation is made available within the institution.

(2) The general duties and functions of the Officer-in-charge shall include:

(a) compliance with provisions of the Act and the rules and orders made thereunder;

(b) compliance with the orders of the Board or Committee;

(c) providing homely atmosphere of love, affection, care, development and welfare for juveniles or children;

(d) maintaining minimum standards of care in the institution;

(e) proper maintenance of buildings and premises;

(f) security measures and periodical inspection, including daily inspection and rounds of the institution, proper storage and inspection of food stuffs as well as food being served;

(g) supervision and monitoring of juveniles' or children's discipline and well being;

(h) planning implementation and co-ordination of all institutional activities, programmes and operations, including training and treatment programmes or correctional activities as the case may be;

(i) prompt action to meet emergencies;

(j) ensuring accident and fire preventive measures within the institutional premises;

(k) stand-by arrangements for water storage, power plant, emergency lighting;

(l) careful handling of plants and equipments;

(m) segregation of a juvenile or child suffering from contagious or infectious diseases;

(n) observance and follow-up of daily routine;

(o) filing of monthly report of juvenile or child in the case file;

(p) organize local and national festivals in the institution;

(q) organize trips or excursions or picnics for juveniles or children;

(r) preparation of budget and control over financial matters;

(s) allocation of duties to personnel;

(t) supervision over office administration, including attending to personnel welfare and staff discipline;

(u) prompt, firm and considerate handling of all disciplinary matters;

(v) organize the meetings of the Management Committee set up under rule 56 of these rules and provide necessary support

(w) maintenance of all records and registers required under the Act and the rules and monthly verification of the same by the Management Committee set up under rule 56of these rules;

(x) liaison, co-ordination and co-operation with the District Child Protection Unit or State Government as and when required; and

(y) coordination with the legal officer in the District Child Protection Unit to ensure that every juvenile is legally represented and provided free legal aid and other necessary support or, where the District Child Protection Unit has not been set up, services of the District or State Legal Services Authority shall be made available.

88. Duties of a Probation Officer or Child Welfare Officer or Case Worker.-

(1) Every probation officer or child welfare officer or case-worker shall carry out all directions given by the Board or Committee or concerned authority and shall perform the following duties, functions and responsibilities:

(a) making social investigation of the juvenile **(Form IV)** or the child **(Form XIII)** through personal interview and from the family, social agencies and other sources;

(b) attending the proceedings of the Board or Committee and submitting reports as and when required;

(c) clarifying problems of the juvenile or the child and dealing with their difficulties in institutional life;

(d) participating in the orientation, monitoring, education, vocational and rehabilitation programmes;

(e) establishing co-operation and understanding between the juvenile or the child and the Officer- in-charge;

(f) assisting the juvenile or the child to develop contacts with family and also providing assistance to family members;

(g) developing a care plan for every child in consultation with the juvenile or child and following up its implementation;

(h) participating in the pre-release programme and helping the juvenile or the child to establish contacts which can provide emotional and social support to juvenile or child after their release;

(i) establishing linkages with voluntary workers and organizations to facilitate rehabilitation and social reintegration of juveniles and to ensure the necessary follow-up;

(j) follow-up of juveniles after their release and extending help and guidance to them;

(k) visiting regularly the residence of the juvenile or child under their supervision and also places of employment or school attended by such juvenile or child and submitting fortnightly reports as prescribed in **Form XXI;**

(l) accompanying juveniles or children where ever possible, from the office of the Board to observation home, special home, children's home or fit person, as the case may be; and

(m) maintaining case file and such registers as may be specified from time to time.

(2) On receipt of information from the Police or Juvenile or Child Welfare Officer of the Police under clause (b) of section 13 of the Act, the probation officer shall inquire into the antecedents and family history of the juvenile or the child and such other material circumstances, as may be necessary and submit a social investigation report as early as possible, in **Form IV or XIII**, to the Board.

89. Duties of House Father or House Mother.-

The general duties, functions and responsibilities of a house father, house mother and other care takers shall be as follows:

(a) handling juvenile or child with love and affection;

(b) taking proper care and welfare of juvenile or child;

(c) maintaining discipline among the juveniles or children;

(d) maintenance, sanitation and hygiene;

(e) implementing daily routine in an effective manner and ensuring children's involvement;

(f) looking after the security and safety arrangements of the home; and

(g) escorting juveniles or children, whenever they go out of the home.

90. Disqualification for officer-in-charge, probation officer or child welfare officer or case-worker, house father or house mother and other care takers and staff.-

(1) The officer-in-charge, probation officer or child welfare officer or case-worker, house father or house mother and other care takers and staff shall not employ a juvenile or child under their supervision or care and protection for their own purposes or take any private service from them.

(2) Any report of physical, sexual or emotional abuse of a juvenile or a child in an institution or outside, by a caretaker, shall hold them liable for disqualification after due inquiry.

91. Training of Personnel.-

(1) The State Government or the Officer-in-charge shall provide for training of personnel of each category of staff, in keeping with their statutory responsibilities and specific jobs requirements.

(2) The training programme shall include-

(a) orientation and induction training of the newly-recruited staff,

(b) refresher training courses and skill enhancement programmes for all care givers once a year, and

(c) staff conferences, seminars, workshops.

(3) The State Government with the help of the State Child Protection Unit, National Institute of Public Co-operation and Child Development and its Regional Centres shall organize regular training and capacity building of personnel involved in the implementation of the Act and the rules made thereunder.

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92. Selection Committee and its composition.-

The State Government shall constitute a Selection Committee by notification in the official gazette, for a period of five years, consisting of the following five members, namely:

(a) A retired judge of High Court as the Chairperson;

(b) One representative from the concerned Department of State Government not below the rank of Director as the Member Secretary;

(c) Two representative from a reputed non-governmental organization, working in the area of child welfare;

(d) Two representative from academic bodies concerned with social work, psychology, sociology, child development, education, law, criminology and with experience of working on children's issues; and

(e) A representative of the National or State Human Rights Commission or, National or State Commission for Protection of Child Rights or, National or State Commission for Women.

93. Functions of the Selection Committee.-

(1)(a) In making appointment of members of the Board or Committee, the Selection Committee shall take into consideration the applications received in this regard in response to a public advertisement to this effect by the district or State child Protection unit or the State Government and,.

(b) the Selection Committee shall select and recommend a panel of names to the State Child Protection Unit or State Government for appointment as members of the Board or Committee from amongst the applications received.

(2) In the event of any complaint against a member of the Board or Committee, the Selection Committee shall hold necessary inquiry and recommend termination of appointment of such member to the State Child Protection Unit or State Government, if required.

(3) (a) The Selection Committee, at the time of recommending names for appointment as member of Board or Committee shall also prepare a panel of names for each Board or Committee to fill in vacancies, which may arise during the tenure of the Board or Committee.

(b) In the event of a vacancy in the Board or Committee, the District Child Protection Unit shall inform the State Child Protection Unit or State Government for filling up such vacancy.

(c) The State Child Protection Unit or State Government shall fill the vacancies on the basis of the panel of names recommended by the Selection Committee.

(4) The Selection Committee shall recommend names for constitution of the State or District or City level Inspection Committees as required under section 35 of the Act.

94. Advisory Boards.-

(1) The State Government shall constitute the State Advisory Board, District Advisory Boards and the City Advisory Boards for a period of three years.

(2) All the Advisory Boards shall hold at least two meetings in a year.

(3) These Advisory Boards shall inspect the various institutional or non-institutional services in their respective jurisdictions; and the recommendations made by them, shall be acted upon by the State Government.

(4) The State Government, through the Selection Committee constituted under rule 92 of these rules, shall set up State, District and City level Advisory Boards, which shall consist of representatives of the State Government, members of the competent authority, academic institutions, locally respectable and spirited citizens, representatives of non-governmental organizations.

(5) The District or City level Advisory Board constituted in terms of sub-section (3) of section 62 of the Act shall also function as the inspection committee under section 35 of the Act.

(6) The termination, resignation, or other vacancy caused in an advisory board and appointment of new members therein shall be done in the same manner as is done in case of the competent authority.

95. Openness & Transparency.-

(1) All Children's homes shall be open to visitors with the permission of the Officer-in-charge and the Committee or Officer-in-charge as the case may be, may consider appropriate to allow representatives of local self government, voluntary organizations, social workers, researchers, medicos, academicians, prominent personalities, media and any other persons as visitors, as the Officer-in-charge considers appropriate keeping in view the security, welfare and the interest of the children.

(2) The Officer-in-charge of the home shall encourage active involvement of local community in improving the conditions in the homes, if, the members of the community want to serve the institution or want to contribute through their expertise.

(3) The Officer-in-charge shall maintain a visitor's book and the remarks of the visitors given therein shall be considered by the advisory inspecting authority.

(4) While visiting an institution, the visitors will not say or do anything that undermines the authority of the Officer-in-charge or is in contravention of the Act or rules or impinges on the dignity of the children.

(5) The visitors may be allowed to visit observation homes and special homes with the permission of the competent authority.

96. Juvenile Justice Fund.-

(1) The State Government shall create a Fund at the State level under section 61 of the Act to be called the 'Juvenile Justice Fund' (herein under referred to as the Fund) for the welfare and rehabilitation of the juvenile or the child dealt with under the provisions of the Act.

(2) In addition to donations, contributions or subscriptions coming under sub-section (2) of section 61, the Central Government shall also make contribution to the Fund.

(3) The Fund shall be applied :

(a) to implement programmes for the welfare, rehabilitation and restoration of juveniles or children;

(b) to pay grant-in-aid to non-governmental organizations;

(c) to meet the expenses of State Advisory Board and its purpose;

(d) to do all other things that are incidental and necessary for the above purposes.

(4) The management and administration of the Fund shall be under the control of the State Advisory Board under sub-section (3) of section 61 of the Act.

(5) The assets of the Fund shall include all such grants and contributions, recurring or non-recurring, from the Central Government and State Government or any other statutory or non-statutory bodies set up by the Central or State Government as well as the voluntary donations from any individual or organization.

(6) All withdrawals shall be made by cheques or requisitions, as the case may be, signed by the secretary-cum-treasurer and in the case of amounts exceeding rupees one thousand, they shall be signed duly by the secretary-cum-treasurer and a member of the board of management to be nominated by the State Advisory Board.

(7) The regular accounts shall be kept of all money and properties, and all incomes and expenditure of the Fund and shall be audited by a notified firm of

Chartered Accountants, or any other recognized authorities as may be appointed by the Board.

(8) The auditors shall also certify the expenditure from the Fund made by the Secretary-cum-treasurer.

(9) All contracts and other assurances shall be in the name of the board of management and signed on their behalf by the Secretary-cum-treasurer and one member of the board of the management authorised by it for the purpose.

(10) The board of management shall invest for the time being the proceeds of sale or other disposal of the property, as well as any money or property not immediately required to be used to serve the objective of the Fund, in any one or more of the modes of investment authorised by law for the investment of trust moneys as the board of management may think proper.

(11) The board of management may delegate to one or more of the members such of its powers, which in its opinion are merely a procedural arrangement.

97. Pending Cases.-

(1) No juvenile in conflict with law or a child shall be denied the benefits of the Act and the rules made thereunder.

(2) All pending cases which have not received a finality shall be dealt with and disposed of in terms of the provisions of the Act and the rules made thereunder.

(3) Any juvenile in conflict with law, or a child shall be given the benefits under sub-rule (1) of this rule, and it is hereby clarified that such benefits shall be made available to all those accused who were juvenile or a child at the time of commission of an offence, even if they cease to be a juvenile or a child during the pendency of any inquiry or trial.

(4) While computing the period of detention or stay or sentence of a juvenile in conflict with law or of a child, all such period which the juvenile or the child has already spent in custody, detention, stay or sentence of imprisonment shall be counted as a part of the period of stay or detention or sentence of imprisonment contained in the final order of the court or the Board.

98. Disposed off cases of juveniles in conflict with law.-

The State Government or as the case may be the Board may, either *suo motu* or on an application made for the purpose, review the case of a person or a juvenile in conflict with law, determine his juvenility in terms of the provisions contained in the Act and rule 12 of these rules and pass an appropriate order in the interest of the juvenile in conflict with law under section 64 of the Act, for the immediate release of

the juvenile in conflict with law whose period of detention or imprisonment has exceeded the maximum period provided in section 15 of the said Act.

99. Disposal of records or documents.-

The records or documents in respect of a juvenile or a child or a juvenile in conflict with law shall be kept in a safe place for a period of seven years and no longer, and thereafter be destroyed by the Officer-in-charge or Board or Committee, as the case may be.

SCHEDULE I

Clothing, bedding, toiletries and other articles (rule 42)

(1) Juveniles or children shall be provided with the following articles:

Bedding

S.No.	Article	Quantity to be provided per child
1.	Towels	4 per Year
2.	Cotton Bed Sheets	2 per 2 Years
3.	Pillow (Cotton stuffed)	1 per 2 Years
4.	Pillow Covers	2 per 2 Years
5.	Woolen blankets	2 per 2 years
6.	Cotton Durry	2 per 2 years
7.	Cotton filld quilt	1 per 2 year(in cold regions)
8.	Mattress	1 per 2 year.
9`.	Mosquito net /coil/liquid	For mosquito net 1 per 2 years /for coil/liquid as per requirement

Clothing for girls

1.	Skirts & blouse or salwar kameez or Half Sari with blouses and petticoats.	5 sets per year for girls = Depending on age and regional Pre terences.
2.	cotton slip (1 Metre each)	6 per year for younger girls
3.	Brassieres	6 per year for older girls
4.	Panties	6 per year
5.	Sanitary towels	12 packs per year for older girls
6.	Woolen sweater	2 in 2 years
7.	Woolen shawl	1 in 2 years

Clothing for boys

1.	Shirts	5sets per year
2.	Shorts	5sets per year for younger boys
3.	Pants	5 sets per year for older boys
4.	Vest	4 sets per year
5.	Underwear	4 sets per year
6.	Woolen Jerseys	2 in 2 years
7.	Scarfs	2 in 2 years

Miscellaneous Articles

1.	Slippers	1 pair per year
2.	Shoes	1 pair per year
3.	School Uniform	2sets per year for children attending outside schools
4.	School Shoes	1pair per year for children attending outside schools
5.	School Bag and Stationery	1 set per year for children attending outside schools
6.	Handkerchiefs	6 per year

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Note:
In addition to the clothing specified above, each child shall be provided, once in three years, with a suit consisting of one white shirt, one pair of khaki shorts or pants, and one pair of white canvas shoes and one blazer (for old regions) for use during ceremonial occasions. In the case of girls it shall be one salwar kameez or one skirt and one blouse, and a pair of white canvas shoes.

(2) In every hospital attached to the institution where there is provision for in-patient cots, the following scale has to be followed:

Night clothing & bedding Scale for supply

1.	Mattress	One per bed per 3 years
2.	Cotton Bed Sheets	Four per bed per year
3.	Pillows	One per bed per two year
4.	Pillow Covers	Four per bed per year
5.	Woollen blankets	One per bed per 2 years
6.	Pyjamas and loose shirts (Hospital type for boys)	3 pairs per child per year
7.	Skirts and blouses or salwar kameez for girls	3 pairs per child per year
8.	Cotton durry	One per bed per three years

Note:

(i) When a child is admitted as an in-patient in the institution Hospital, the Institution Doctor shall issue the in-patient with the hospital clothing, the clothes on body being preserved, duly washed and handed back, at the time of the child's discharge from the hospital.

(ii) Each child shall be provided with Kit Box or a Locker, as per convenience and necessity.

(iii) The suprintendedent shall make arrangements for two- tier bed system in place of conventional cots, as per convenience and necessity

(3) Toiletry:

every resident of the Home shall be issued with oil, soap, and other material for in accordance with the following scales:

Hair oil for grooming the hair	100 mls per month for boys and 250 mls for girls
Toilet soap or carbolic soap	1Largebar per month (200 gm)
Tooth paste and brush	1 Brush per 3 months 50 gms paste per month
Comb	1 per year

Note:

(a) For washing of cloth and towels, bed-sheet etc., the following scale may be followed:

(i) Washing Soap/washing power for one month (500 gms)

(ii) Whitening/bleaching agent to the extent required only for white clothing

Provided, however, the hospital clothing is not mixed with other clothing at the time of washing and if necessary, the Superintendent can issue the above items separately for washing of hospital clothing.

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(b) The children attending school outside the institution may be issued with one additional bar of washing soap (100 gms) per head per month for washing their school uniform.

(4) The following items shall be provided for maintaining the Homes in a healthy and sanitary condition:

Item	**Scale of supply**
(1) Broom Stick	25 to 40 Nos per month depending on the area of the institution
(2) DDT spray	As per the institution Doctor's advice
(3) Effective bugs killing agent	As required
(4) Phenyl and cleaning acid	(daily) Depending on the area of lavatories to be cleaned as per institution Doctor's advice

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SCHEDULE II

Nutrition and Diet Scale (rule 45)

Name of the articles of diet		*Scale per head per day*
(1)	Rice/Wheat/Ragi/Bajri/Jowar which at least 100 Gms to be either wheat, Ragi or jowar	600 (700 GMS for 16-18 years age) Gms of above 12 years
(2)	Dal/Kathol	120 Gms for 6 to 12 year / 150 Gms for above 12 years
(3)	Edible Oil	25 Gms ml for 6 to 12 year / 50 ml for above 12 years
(4)	Onion	25 Gms
(5)	Salt	25 Gms
(6)	Turmeric	05 Gms
(7)	Coriander Seed Powder	05 Gms
(8)	Ginger	05 Gms
(9)	Garlic	05 Gms
(10)	Cocum/ Mango powder	05 Gms
(11)	Milk (at breakfast)	280 ml for 6 to 12 year / 330 ml for above 12 years
(12)	Dry Chillies	05 Gms
(13)	Vegetables Leafy	100 Gms
	Non-leafy	130 Gms
(14)	Curd or Butter Milk	50 ml for 6 to 12 year/70 ml for above 12 years
(15)	Jaggery	30 Gms for 6 to 12 year/ 50 Gms for above 12 years
(16)	Sugar	30 Gms for 6 to 12 year/ 50 Gms for above 12 years
(17)	VegetableGhee	10 Gms for 6 to 12 year/ 15 Gms for above 12 years
(18)	Breakfast	80 Gms for 6 to 12 year/ 150 Gms for above 12 years
Following items for 25 Children per day		
(19)	Pepper	12 Gms
(20)	Jeera Seeds	12 Gms
(21)	Black Gramdall	25 Gms
(22)	Mustard Seeds	25 Gms
(23)	Ajwain Seeds	25 Gms
(24)	Papad	No.1 Per head (once in a week)
(25)	Pickle	5 Gms (once in a week)
For Sick Children		
(26)	Bread	500 Gms
(27)	Milk	500 Ml

Other Items

(28) LP Gas for Cooking only

Instructions:

(1) Variation in Diet :

(a) Varieties of dal may be issued alternatively.

(b) Children shall be issued with either 60 Gms of jaggery/suger per head in the shape of Lapsi/Kansar/Shukhdi etc once in a week.

(c) Potatoes shall be issued in lieu of vegetables once in a week.

(d) Leafy vegetables such as Fenugreek (Methi), Spinach (Palak), Sarson (Mustard leaves) Gongura Thotakura or any other saag etc., may also be issued once in a week. If a kitchen garden is attached to any institution leafy vegetables, in addition to drumstick trees, curry leaves trees and coriander leaves, should be grown and issued and the Superintendent should try to issue variety of vegetables and see that the same vegetable is not repeated for at least a period of one week.

(e) The Superintendent may make temporary alternations in the scale of diet in individual cases when considered necessary by him, or on the institution Doctor's advice subject to the condition that the scale laid down is not exceeded.

(2) Meal Timing and Menu:

a) Breakfast between 6:00 to 8:00 am

(i) Upma/pauva/cereals or any other dish.

(ii) Chutneys from Gongura or fresh curry leave or fresh coriander or Coconut and Putnadal or idly – sambhar may be issued as a dish.

(iii) Milk

(iv) Any seasonal fruit in sufficient quantity as per scale

b) Lunch as per School timing and Dinner After 7:00 P.M.

(i) Rice, Chapattis, Vegetable, dal, salad and butter milk/ curd

(ii) khichadi, bhakhari/ chapatti, kadi/Vegetable, Milk

(3) Others:

(a) Depending on the season, the Superintendent shall have the discretion to alter the time for distribution of food.

(b) On the advise of the Institution Doctor, every sick child who is prevented from taking regular food, on account of his ill-health, may be issued with medical diet, as indicated in diet scale.

(c) Extra diet for nourishment like milk, eggs, sugar and fruits shall be issued to the children on the advice of the institution Doctor in addition to the regular diet, to pick up weight or for other health reasons and for the purpose of calculation of the daily ration, the sick children shall be excluded from the day's strength.

(d) On the following national and festival occasions, sweet dishes may be distributed to all the children at the Home at the rate fixed by the Director Social Defence, from time to time.

1. Republic Day (26th January)
2. Ambedkar's Birthday (14th April)
3. Independence Day (15th August)
4. Mahatma Gandhi's Birth Day (2nd October)
5. Children's Day (14th November)
6. Child Rights Day (20th November)

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7. Dussehra (Vijayadasami)
8. Deepavali
9. Ramzan (Id-Ul-Fitr)
10. Bakrid (Id-Ul-Zuha)
11. Christmas (25th December)
12. Janmastmi
13. Ram navmi
14. Makarsankranti
15. Hindu New Year Day
16. Holi
17. Dhulety
18. Sardar Patel birthday
19. International anti child labour day (12th June)

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FORM I
[Rule 13(1)(c)]

SUPERVISION ORDER

When the Juvenile is placed under the care of a parent, guardian or other fit person/fit institution Profile No. _____ of _____ 20 ____. Whereas (name of the juvenile/) has this day found to have committed an offence and has been placed under the care of (name)_____(address) _____ _____ on executing a bond by the said _____and the Board is satisfied that it is expedient to deal with the said juvenile by making an order placing him/her under supervision.

It is hereby ordered that the said juvenile be placed under the supervision of _____ probation officer/case worker, for a period of _____ subject to the following conditions :

1. that the juvenile along with the copies of the order and the bond executed by the said _____ shall be produced before the probation officer/caseworker named therein _____.
2. that the juvenile shall be submitted to the supervision of the aforesaid probation officer/ case worker.
3. that the juvenile shall reside at _____ for a period of _____.
4. that the juvenile shall not be allowed to quit the district jurisdiction of _____without the permission of the probation officer/case worker.
5. that the juvenile shall not be allowed to associate with bad characters.
6. that the juvenile shall live honestly and peacefully; and will go to school regularly/ endeavour to earn an honest livelihood.
7. that the juvenile shall attend the attendance centre regularly.
8. that the person under whose care the juvenile is placed shall arrange for the proper care, education and welfare of the juvenile.
9. that the preventive measures will be taken by the person under whose care the juvenile is placed to see that the juvenile does not commit any offence punishable by any law in India.
10. that the juvenile shall be prevented from taking narcotic drugs or psychotropic substances or any other intoxicants.
11. That the directions given be the probation officer/case worker from time to time, for the due observance of the conditions mentioned above, shall be carried out.

Dated this_____day of_____20 ___.

(signature)
Principal Magistrate, Juvenile Justice Board

Additional, conditions, if any may be inserted by the Juvenile Justice Board

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FORM II
[Rule 13(1)(d)]

Order of detention under Sub-Section _____ of Section _____, Sub-Section_____ of Section _____ and Sub-Section _____ of Section_____.

To
The Officer in charge

Whereas on the _____ day of _____20____, _____ (name of the juvenile), son/ daughter of _____, aged_____, residing at _____ being found in Profile No. _____ to be juvenile in conflict with law/ section _____ is order by me _____ Principal Magistrate, Juvenile Justice Board under section_____ of Juvenile Justice Act, 2000 to be kept in the Observation Home/ Special Home/ _____ _____ for a period of _____.

This is to authorize and require you to receive the said juvenile; into your charge, and to keep him/her in the Observation Home/ Special Home/ _____ for the aforesaid order to be carried into execution according to law.

Given under my hand and the seal of Juvenile Justice Board

This _____ day of _____ 20.

(signature)
Principal Magistrate, Juvenile Justice Board

Encl:
Copy of the judgment, if any, or orders, particulars of home and case history and individual care plan, if any:

Strike which is not required.

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FORM III
ORDER OF SOCIAL INVESTIGATION/INQUIRY
[Rule 13(1)(e) and (5)]

To
Probation Officer/ Case Worker/Person in-charge of Voluntary Organization/ Case Worker

Whereas a report/complaint under section _____ of the Juvenile Justice (Care and Protection of children) Act, 2000 has been received from _____ _____ in respect of _____(name of the (juvenile), son/daughter of _____ approximate age _____ residing at _____, who has been produced before the Board.

You are hereby directed to enquire into the social antecedents, family background and circumstances of the alleged offence by the said juvenile and submit your social investigation report on or before _____or within such time allowed to you by the Board.

You are also hereby directed to consult an expert in child psychology, psychiatric treatment or counselling for their expert opinion if necessary and submit such report along with your Social Investigation Report.

Dated this _____day of _____20_____.

(signature)
Principal Magistrate, Juvenile Justice Board

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FORM IV

[Rules 13(5) and 88 (1) (a) and (2)]

SOCIAL INVESTIGATION REPORT

Sl. No._____

Submitted to the Juvenile Justice Board_____(address).

Probation Department/Concerned State Government Authority/Voluntary Organisation_____ (Signature and Stamp)

Profile No.

Under section:

Title of Profile:

Police Station:

Nature of offence charge:

Name
Father's Name
Permanent Address
Last address before apprehension

Religion
Caste
Year of birth
Age
Sex_____

Previous institutional/case history and individual care plan, if any

FAMILY

Members of family	Name	Age	Health	Education	Occupation	Monthly Earnings	Disabilities	Any other eg. Social habit
Father								
Sept Father								
mother								
Step Mother								

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Siblings								
Any other legal guardian / relative								

If married, relevant particulars

Other near relatives or agencies Interested_____

Attitude towards religion normal And ethical code of the home etc._____

Social and economic status_____

Delinquency record of members Of family _____

Present living conditions_____

Relationship between parents/ Parents and children especially With the juvenile under investigation

Other factors of importance if any_____

JUVENILES HISTORY

Mental condition (Present and past)

Physical condition (Present and past)_____

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Habits, interests
(moral, recreational
etc.)_____

Outstanding characteristics and
personality
traits_____

Companions and their
influence_____

Truancy from home, if any

School (attitude towards school,
teachers, class mates and vice-versa)

Work record (jobs held, reasons for leaving,
vocational interests, attitude towards job or
employers)_____

Neighbourhood and neighbours
report_____

Parent's attitude towards discipline
in the home and child's
reaction_____

Any other remarks

RESULT OF INQUIRY

Emotional factors
Physical condition
Intelligence
Social and economic factors
Religious factors
Suggested causes of the problems
Analysis of the case including reasons for delinquency
Opinion of experts consulted
Recommendation regarding treatment and its Plan by Probation Officer

Signature of the Probation Officer/Case Worker

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FORM V

[Rules 15(5) and 80(2)]

UNDERTAKING/ BOND TO BE EXECUTED BY A PARENT/ GUARDIAN/ RELATIVE /FIT PERSON IN WHOSE CARE A JUVENILE IS PLACED

Whereas I _____ being the parent, guardian, relative or fit person under whose care _____(name of the juvenile) has been ordered to be placed by the Juvenile Justice Board _____, have been directed by the said Board to execute an undertaking/ bond with surety in the sum of Rs._____/- (Rupees_____) or without surety. I hereby bind myself on the said _____ being placed under my care. I shall have the said _____ properly taken care of and I do further bind myself to be responsible for the good behaviour of the said _____and to observe the following conditions for a period of _____ years w.e.f_____.

1. that I shall not change my place of residence without giving previous intimation in writing to the Juvenile Justice Board through the Probation Officer/Case Worker;
2. that I shall not remove the said juvenile from the limits of the jurisdiction of the Juvenile Justice Board without previously obtaining the written permission of the Board;
3. that I shall send the said juvenile daily to school/to such vocation as is approved by the Board unless prevented from so doing by circumstances beyond control;
4. that I shall send the said juvenile to an Attendance Centre regularly unless prevented from doing so by circumstances beyond my control;
5. that I shall report immediately to the Board whenever so required by it;
6. that I shall produce the said juvenile in my care before the Board, if he/she does not follow the orders of Board or his/her behaviour is beyond control;
7. that I shall render all necessary assistance to the Probation Officer /Case Worker to enable him to carry out the duties of supervision;
8. in the event of my making default herein, I undertake to produce myself before the Board for appropriate action or bind myself, as the case may be, to forfeit to Government the sum of Rs._____ (Rupees_____).

Dated this _____day of _____20.

Signature of person executing the Undertaking/Bond.

(Signed before me)

Principal Magistrate, Juvenile Justice Board

Additional conditions, if any, by the Juvenile Justice Board may be entered numbering them properly;

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(Where a bond with sureties is to be executed add)

I/We _____ of _____

(place of residence with full particulars) hereby declare myself/ourselves as surety/sureties for the aforesaid _____ (name of the person executing the undertaking/bond) to adhere to the terms and conditions of this undertaking/bond. In case of _____ (name of the person executing the bond) making fault therein, I/We hereby bind myself/ourselves jointly or severally to forfeit to government the sum of Rs._____/- (Rupees_____) dated this the _____ day of _____20 _____ in the presence of _____.

Signature of Surety(ties)

(Signed before me)

Principal Magistrate, Juvenile Justice Board

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FORM VI

[Rules 15(6) and 80(2)]

PERSONAL BOND BY JUVENILE/CHILD

Personal Bond to be signed by juvenile/child who has been ordered under Clause _____of Sub-Section _____ of Section _____ of the Act.

Whereas, I _____ inhabitant of _____ (give full particulars such as house number, road, village/town, tehsil, district, state) _____ have been ordered to be sent back/restored to my native place by the Juvenile Justice Board/Child Welfare Committee _____ under section _____ of the Juvenile Justice (Care and Protection of Children) Act, 2000 on my entering into a personal bond under sub-rule _____ of rule _____ and sub-rule _____ of rule _____ of these Rules to observe the conditions mentioned herein below. Now, therefore, I do solemnly promise to abide by these conditions during the period_____.

I hereby bind myself as follows:

1. That during the period_____ I shall not ordinarily leave the village/town/district to which I am sent and shall not ordinarily return to_____ or go anywhere else beyond the said district without the prior permission of the Board/Committee;
2. That during the said period I shall attend school/ vocational training in the village/town or in the said district to which I am sent;
3. That in case of my attending school/ vocational training at any other place in the said district I shall keep the Board/Committee informed of my ordinary place of residence.

I hereby acknowledge that I am aware of the above conditions which have been read over/explained to me and that I accept the same.

(Signature or thumb impression of the juvenile/child)

Certified that the conditions specified in the above order have been read over/explained to (Name of juvenile/child)_____and that he/she has accepted them as the conditions upon which his/her period of detention/ placement in safe custody may be revoked.

Certified accordingly that the said juvenile/child has been released/relived on the_____.

Signature and Designation of the certifying authority i.e. Officer-in-charge of the institution

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FORM VII

[Rule 17(10)]

DISCHARGE ORDER

I _____ name and designation of the discharging authority_____ State Government/ Union Territory Administration, do by this order permit_____ son/ daughter of _____residence_____ Profile Number_____ who was ordered to be detained/placed in a observation home/special home/after care home by the Juvenile Justice Board _____under section_____ of the Juvenile Justice (Care and Protection of Children) Act 2000, for a term of _____ on the _____day of _____20_____ and who is now in the_____ home, at _____to be discharged from the said_____ home and supervision and the authority of _____ during the remaining period of stay.

This order is granted subject to the conditions hereon, upon the breach of any of which it shall be liable to be revoked.

Dated

Signature and Designation of
Releasing Authority

Place:

Conditions:

1. The discharged person shall proceed to _____ and live under the supervision and authority of _____ until the expiry of the period of his/her detention unless the remission is sooner cancelled.
2. He/She shall not, without the consent of the _____ remove himself/herself from that place or any other place, which may be named by the said _____.
3. He/she shall obey such instruction as he/she may receive from the said _____ with regard to punctual and regular attendance at school/vocation or otherwise.
4. He/She shall attend the Attendance Centre located at _____ regularly.
5. He/She shall abstain from committing any offense and shall lead a sober and industrious life to the satisfaction of _____.
6. In the even of his/her committing a breach of any of the above conditions the remission of the period of detention hereby granted shall be liable to be cancelled and on such cancellation he/she shall be dealt with under sub section (3) of section 59 of the Juvenile Justice (Care & Protection of Children) Act 2000.

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I hereby acknowledge that I am aware of the above conditions which have been read over/explained to me and that I accept the same.

(Signature or mark of the released juvenile)

Certified that the conditions specified in the above order have been read over/explained to (Name of juvenile/child)_____and that he/she has accepted them as the conditions upon which his/her period of detention may be revoked.

Certified accordingly that the said juvenile/child has been discharged on the_____.

Signature and Designation of the certifying authority
i.e. Officer-in-charge of the institution

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FORM VIII

[Rule 27(17)]

SUPERVISION ORDER

When the Child is placed under the case of a parent guardian or other fit person Case No._____ of _____ 20___ Para

Whereas (name of the child) _____ has this day been found to be in need of care and protection, and has been placed under the care and supervision of (name) _____ (address) _____on executing a bond by the said _____ and the Committee is satisfied that it is expedient to deal with the said child by making an order placing him/her under supervision.

It is hereby ordered that the said child be placed under the supervision of (name) _____ (address) _____ for a period of _____ subject to the following conditions that:

1. the child along with the copies of the order and the bond, if any, executed by the said _____ shall be produced before the Committee as and when required by the person executing the bond
2. the child shall be placed under the supervision of the aforesaid parent/guardian/ fit person
3. the child shall reside at _____ for a period of _____
4. the child shall not be allowed to quit the district jurisdiction of _____ without the permission of the Committee.
5. the child shall go to school regularly/endeavour to earn an honest livelihood.
6. the person under whose care the child is placed shall arrange for the proper care, education and welfare of the child.
7. the child shall not be allowed to associate with undesirable characters and shall be prevented from coming in conflict with law.
8. the child shall be prevented from taking narcotic drugs or psychotropic substances or any other intoxicants.
9. the directions given by the Committee from time to time, for the due observance of the conditions mentioned above, shall be carried out.

Dated this _____ day of _____ 20 _____

(Signature)

Chairperson, Child Welfare Committee

* Additional conditions, if any may be interested by the Child Welfare Committee

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FORM IX

[Rules 27(17) and 80(2)]

UNDERTAKING BY THE PARENT OR 'FIT PERSON' TO WHOM CHILD IS RESTORED

I _____ resident of House no. _____ Street _____ Village/Town _____ District _____ State _____ do hereby declare that I am willing to take charge of (name of the child) _____ Aged _____ under the orders of the Child Welfare Committee_____ subject to the following terms and conditions:

(i) If his/her conduct is unsatisfactory I shall at once inform the Committee.

(ii) I shall do my best for the welfare and education of the said child as long as he/she remains in my charge and shall make proper provision for his/her maintenance.

(iii) In the event of his/her illness, he/she shall have proper medical attention in the nearest hospital.

(iv) I undertake to produce him/her before the competent authority as and when required.

Date this day of

Signature

Signature and address of witness (es)

(Signed before me)
Chairperson, Child Welfare Committee

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FORM X

[Rule 27(18) 29(13)]

ORDER OF SHORT TERM PLACEMENT PENDING INQUIRY

Name of the child :

Sex :

Age :

Father's Name :

Mother's Name :

Address :

Date of receiving by Organization/Institution:

Produced by:

This is to authorize and direct you to receive the said child in your charge, and keep her/him in the Shelter Home/Children's home for care and protection under section 33 (1) of the Juvenile Justice Act, 2000.

Next Date:

(Signature)
Chairperson/ Member
Child Welfare Committee

FORM XI

[Rule 27(19)]

ORDER OF RESTORATION OF A CHILD TO AN INSTITUTION

To
The Officer-in-Charge

Whereas on the _____ day of _____ 20 _____ (name of the child) _____, son/daughter of _____ _____ aged _____ residing at _____ _____ being in care and protection under section 33(4) of the Juvenile Justice (Care and Protection) Act 2000 is ordered by the Child Welfare Committee _____, to be kept in the Children's Home/ Shelter Home _____ for a period of _____.

This is to authorize and require you to receive the said child in your charge, and to keep him/her in the Children's Home/ Shelter Home _____ for the aforesaid order to be carried into execution according to law.

Given under my hand and the seal of Child Welfare Committee.

This _____ day of _____ 20.

(signature)
Chairperson/ Member
Child Welfare Committee

Encl:
Copy of the orders, particulars of home and previous record, case history and individual care plan, whichever is applicable:

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FORM-XII
[Rule 28(1)]
ORDER FOR ENQUIRY

To
Child Welfare Officer/Person in-charge of Voluntary Organization/Social Worker/Case Worker

Whereas a report under section _____ of the Juvenile Justice (Care and Protection of children) Act, 2000 has been received from _____ in respect of (name of the child)_____, aged (approximate)____, son/daughter of _____ residing at_____ _____, who has been produced before the Committee under section_____ of the Juvenile Justice (Care and Protection of Children) Act, 2000.

You are hereby directed to enquire into the social and family background of the said child and submit your inquiry report on or before _____or within such time allowed to you by the Committee.

You are also hereby directed to consult an expert in child psychology, psychiatric treatment or counselling for their expert opinion if necessary and submit such report along with your Inquiry Report.

You are hereby directed to enquire into the character and social antecedents of the said juvenile and submit your social investigation report on or before _____ or within such time allowed to you by the Board/Committee.

Dated this_____day of _____20_____.

(signature)
Chairperson/Member
Child Welfare Committee

SEAL

FORM XIII

[Rules 28(3); 34(3)(g)(ii); and 88(1)(a) and (2)]

FORMAT FOR INQUIRY REPORT

Sl. No_____

Produced before the Child Welfare Committee_____ (address).

Case No.

Concerned Government Department/ Voluntary Organisation

Category of child in need of care and protection:

Name Religion

Father's Name Caste

Permanent Address Year of birth

Address of last residence Age

_____Sex_____

Previous institutional/case history and individual care plan, if any

FAMILY

Members of family	Name	Age	Health	Education	Occupation	Monthly Earnings	Disabilities	Any other eg. Social habit
Father								
Sept Father								
mother								
Step Mother								
Siblings								
Any other legal guardian / relative								

If married, relevant particulars

INDEX

Other near relatives or agencies interested_____

Attitude towards religion, normal and ethical code of the home etc._____

Social and economic status_____

Delinquency record of members Of family_____

Present living conditions_____

Relationship between parent/ parents and children especially with the said child _____

Other factors of importance if any_____

CHILD'S HISTORY

Mental condition (Present and past)

Physical condition (Present and past)

Habits, interests (moral, recreational etc.)_____

Outstanding characteristics and Personality traits_____

Companions and their influence

INDEX

Truancy from home, if any

School (attitude towards school, teachers, class mates and vice-versa)

Work record (jobs held, reasons for leaving vocational interests, attitude towards job or employers)

Neighbourhood and neighbors report

Parent attitude towards discipline in the home and child's reaction

Any other remarks

RESULT OF INQUIRY

Emotional factors

Physical condition

Intelligence

Social and economic factors

Religious factors

Reasons for child's need for care and protection

Opinion of experts consulted

Recommendation of Child Welfare Officer/Case Worker/Social Worker regarding psychological support, rehabilitation and reintegration of the child and suggested plan

Signature of the Child Walfare Officer / Case Worker / Social Worker

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FORM XIV

[Rule 34(3)(c) and 34 (4) (T)]

ORDER FOR DECLARING CHILD LEGALLY FREE FOR ADOPTION

1. In exercise of the powers vested in the Child Welfare Committee_____ constituted under sub-section_____ of section_____ of the Juvenile Justice (Care and Protection of Children) Act, 2000 and sub-rule____ of rule____ of these rules, minor_____ born on (date) _____ placed in custody of Specialised Adoption Agency (name & address) _____, _____vide order _____ dated _____ of the Chairperson, Child Welfare Committee _____, has been declared legally free for adoption on the basis of details furnished through:
 a) Inquiry/home study conducted by Child Welfare Officer/Social Worker/ Case Worker
 b) Document of surrender executed by the parent(s) and surrender deed signed in the presence of the Committee under sub-rules _____ of rule _____ of these rules
 c) Declaration submitted by the Specialised Adoption Agency under sub-rules_____ of rule _____ of these rules
2. _____ (name of the Specialised Adoption Agency) shall fulfill all conditions specified in Juvenile Justice (Care and Protection of Children) Act, 2000 and the rules relating thereto and furnish a copy of adoption decree/guardianship order in respect of the minor as may be required by Committee and the concerned Department of the State Government of Gujarat.

Date:
Place

Chairperson/Member
Child Welfare Committee

For completion by the Specialised Adoption Agency.

i. I have read and understood Chapters III and IV of Juvenile Justice (Care and Protection of Children) Act, 2000 and the rules thereunder and agree to abide/be bound by the same while placing said minor in adoption.

ii. I further declare that the particulars stated in the declaration submitted by me on _____ is true and correct. In case they are found to be false or incorrect, the Committee has right to suspend this Release Order for (name of the minor) _____ and ask for production of said minor before the Committee.

Date:
Place:

Child Welfare Officer/Social Worker

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FORM XV

[Rule 34(4)(c)]

DEED OF SURRENDER

I _____ d/o or s/o_____ residing at _____ _____ am not in a position due to social reasons/ due to being single/ ill/ disabled to take care of my child (name, if any) _____ approximate age_____ years. I am explained the consequences of surrendering my child by the Child Welfare Officer/Social Worker (name) _____and the Child Welfare Committee _____. In full knowledge of all these facts, I am surrendering my child before the Committee today, dated _____. Within two months from this stated date if I do not revise my decision to take back my child and do not approach the said Committee for the same, the Committee shall declare my child legally free for adoption and I shall have no further claim on my child.

Signature of parent/guardian

Date

That I _____ Child Welfare Officer/Social Worker have explained the procedure and the consequences of surrendering the child to the concerned parent/guardian on (date) _____.

Signature of Child Welfare Officer/Social Worker

Date

(Signed before me)
Chairperson/ Member
Child Welfare Committee

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FORM XVI

[Rule 36(3)]

A. FOSTER CARER'S ASSESSMENT

1. Agency Details

Name of the Agency

Address

Telephone

Fax

E-mail

Name of the Social Worker

Tel

Date_____ (Form Completed)

2. Details of the Applicant

Surname

Full Name

Date of Birth

Religion

Language(s) spoken at Home

Occupation

(a) Nature of Work

(b) Hours of Work

Address

Telephone

3. Description of a preferred child

The type of child, the foster-carer would consider
(To be filled after a full discussion with the Foster-carer)

INDEX

Age Range Under 2 years 3-6 years 7-12 years 13-15 years 16-18 years

Sr. No.	Type of Placement	Duration
1	Pre adoption	-
2	Emergency	-
3	Short Term	-
4	Assessment	-
5	Lang term	-

The Child applicant can care for (Please Tick)

A child who is:

i. Neglected
ii. Orphaned
iii. With Physical impairment
iv. Mental impairment
v. Hearing impairment
vi. Speech impairment
vii. Special Education needs
viii. Learning difficulties
ix. Physical abuse
x. Sexual abuse
xi. Who does not relate easily
xii. Who needs control/may defy authority
xiii. Born of rape/incest
xiv. Who's parent(s) suffering from disease
xv. Whose parent(s) is HIV positive
xvi. Whose parent(s) are AIDS patient
xvii. Whose parent(s) are alcoholic
xviii. Drug addicts
xix. Are in jail
xx. Relinquished
xxi. Belong to another caste
xxii. Are of different religion

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4. Profile of the family

Brief Family Profile					
Name	**Gender**	**Approx. Age**	**Occupation**	**Education**	**Relationship with the applicant**

(Give details of personalities, family life, experiences etc. Also highlight specific qualities of the family that can match with a child's needs. The details should facilitate initial identification of a potential match with a specific child.)

Accommodation (House)
(Details of type, size, own/rented space, amenities etc.)

Neighborhood
(Details of composition, amenities and facilities, public transport etc.)

5. Verification of applicant's identity

Place of residence

Period of stay

Nationality

Marital status (date/length of marriage)

Has either of the applicant had a previous marriage? Details

If children from previous marriage? Details

Specify documents seen with date

6. Career History

(Details of education, employment, voluntary work, part time work, leisure activities)

7. Agency Inquiries:

Medical check
Police check
Employer

8. Personal references (from 2 persons)
This section to be completed after interviews with two references; information gathered through these interviews should include:

- ☐ Length of time known
- ☐ Relationship to the applicant
- ☐ Provide evidence on the applicants ability to perform the tasks involved in _____
- ☐ Caring for children
- ☐ Providing a safe and caring environment
- ☐ Applicant as a neighbor
- ☐ Interests, talents, personality

Assessment of the social worker for these references

B. HOME STUDY REPORT

A Home Study Report of the foster carer(s) being a crucial document being prepared by the social worker of the Specialised Adoption Agency based on the information collected by the format given above should broadly include the following information:

- Social status and family background
- Description of the home
- Standard of living as it appears in the home
- Current relations amongst the members in the home
- Status of development of the children already in the home
- Employment and economic status
- Health details
- Details of facilities of education, medical, vocational trainings available in the neighborhood
- Reasons for wanting a child in foster care
- Attitudes of the grandparents and other relatives
- Anticipated plans for the foster child
- Legal status of the foster carer(s)
- Willingness to undergo training.

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C. DETAILS OF APPLICANT(S)

1. Background:
Family structure with details of parents and siblings, significant details of other family members, childhood experiences, etc.

2. Relationships:
If couple – Length of married life, what qualities does each applicant bring to the partnership, what makes the relationship positive for each other? Within the relationship how do applicants cope with problems/stress/anger? How do applicants support each other? What is each applicant's assessment of how the foster placement will affect his or her relationship?

3. Decision making:
How is decision – making exercised in this relationship and how does each of the applicants view this? Is there wider extended family involvement in the couple's decision-making process?
If so, how will this affect the child to be placed?

What are the strengths and vulnerabilities of this partnership?

- ☐ Children
- ☐ Children and their parents' relationships
- ☐ Children's attitude and readiness for a foster placement sibling. Describe each child and their temperament, any special talent and need, how children have been involved in preparation.

4. Applicants support networks:
Give a general picture of support systems currently used by the applicants including extended family, friends, neighbors, religious activities, community groups etc. include details of the location etc.

5. Other significant members of the family:
Living in the house or not. Their relationship to the applicants, how much time they spent within the home, their attitude to the proposed placement? How important is their acceptance of placement to the applicant.

6. Description of the family life style:
Outline what family considers important e.g. how important are religious & cultural practices. How is affection show in the family? How do the members spend their time? What expectations family members have with regard to personal space? What value is placed on education/hobbies and leisure activities that the whole family undertakes?

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7. Parenting capacities:

Experience of the applicants of caring and working with children. Describe their adjustment to parenthood. What is their understanding of how children develop?

Using their own childhood experiences what patterns of parenting would they repeat and what would they change? What is their understanding of their own parenting strengths/potentials and about their parenting skills to meet the needs of individual child. To what extent they would expect other family members to be involved in parenting of their children/placed children.

How will they ensure that a child will be safe from physical sexual abuse in their family and within wider support networks?

8. Managing Unacceptable Behaviour:

What are rules in the household? How do the applicants show approval/disapproval? What are discipline measures they use? Their attitude towards punishment?

What do they anticipate would be the issues and difficulties and themselves for their own children and for their support network? What do they anticipate would be the issues and difficulties for the child? Which changes do they anticipate would need in their lifestyle?

Social workers assessment:

It should provide an analysis of all the information collected through the format and its significance with regard to the capacity of the applicant to carryout fostering task: (What skills do the applicants have in relating to and working with children? How well will the applicant work with the agency, with biological parents? What are the strengths and resources of the applicants and which are the areas where they may experience difficulty? Also the point of disagreement between the social worker and the applicants should be recorded here)

Recommendations of the Child Welfare Officer/Social Worker

(Signature)

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FORM XVII

[Rule 35(1)]

ORDER OF FOSTER CARE PLACEMENT

The child (name and address) _____ _____ approximate age_____ d/o or s/o Mr._____ and Mrs. _____or Ms._____ _____ is in need of care and protection of a family. Mr._____ and Mrs._____ _or Ms._____ resident of (complete address and contact numbers) _____ _____is/ are declared fit person/persons for foster-care placement of the child based on the home study report of the Child Welfare Officer/Social Worker Ms./ Mr._____ of the organization (address) _____.

The child (name) _____ is placed in foster care for a period of _____ (days/ months), under the supervision of the aforesaid Child Welfare Officer/Social Worker (name and contact) _____.

Chairperson/ Member
Child Welfare Committee

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FORM XVIII

[Rule 38(5)]

ORDER OF SPONSORSHIP PLACEMENT

The juvenile/child (name and address) _____ approximate age_____ d/o or s/o Mr._____ and Mrs. _____or Ms._____ has been identified by the State/ District Child Protection Unit as a juvenile/child at risk needing urgent care and protection. On the basis of the Inquiry Report submitted by the State/District Child Protection Unit/ Child Welfare Officer/ Social Worker it is established that the said juvenile/child needs sponsorship support for education/ health/ nutrition/ other developmental needs _____ *(please specify).* The State/District Child Protection Unit is hereby directed to release Rs._____ per month/ Rs._____ as one time sponsorship support to the said juvenile/ child for a period of _____ (days/month) and carryout necessary follow up.

The State/District Child Protection Unit is also directed to clearly lay down the terms and conditions for sponsorship support and follow up.

Principal Magistrate, Juvenile Justice Board/
Chairperson/Member, Child Welfare Committee

Copy to: State/District Child Protection Unit or concerned Department of the State Government

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FORM XIX
[Rule 39 (3)]
ORDER OF AFTER CARE PLACEMENT

The juvenile/child (name) _____ d/o or s/o _____ has/ will be completing 18 years of age on (date) _____. She/ he is still in need of care and protection for the purpose of rehabilitation and reintegration. She/he is placed in (name of organization)_____ for providing aftercare. The In-charge of the Organization is directed to admit the child and provide all possibele opportunities for her/ his rehabilitation and reintegration in its truest sense. The person shall be provided all these opportunities maximum till the age of 21 years only or till reintegration in the society, whichever is earlier. The In-charge will send half yearly report on the status of the child/youth to the Child Welfare Committee.

The State/District Child Protection Unit is hereby directed to arrange for aftercare for the said juvenile/child for a period of _____ (days/month) and carryout necessary follow up. The State/District Child Protection Unit is also directed to clearly lay down the terms and conditions for aftercare programme and carryout necessary follow up.

Principal Magistrate, Juvenile Justice Board/
Chairperson/Member, Child Welfare Committee

Copy to: State/District Child Protection Unit or concerned Department of the State
Government

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FORM XX

[Rule 51(9) and 55(1)(t)]

CASE HISTORY FORM FOR CHILD IN NEED OF CARE AND PROTECTION

Case/Profile No._____

Date & Time_____

Affix a latest photograph here

A. PERSONAL DATA

1 Name

2 Male / Female (tick the appropriate category)

3 a) age at the time of admission
b) present age:

4 Category:
- Separated from family
- Abandoned/deserted
- Victim of exploitation and violence (give detail)
- Run-away
- Any other

5 Religion (OC/BC/SC/ST)
Hindu Muslim/Christian/Other (pl. specify)

6 Location of Residence Urban/Sub-urban/Rural/Slum/
Industrial/Other (Pl. specify)

7 Native District & State:

8 Description of the Housing:
i) Concrete building Tiled
House/Hut/On the street/Others
(please Specify)

ii) Three bed room/two-bed
room/one-bed room/no separate bed room

iii) Owned/rental

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9. By whom the juvenile was brought before the Child Welfare Committee:

i) Police-Local Police/Special Juvenile Police Unit/Railway Police/ Women Police
ii) Probation Officers
iii) Social Welfare Organization
iv) Social Worker
v) Parent(s)/Guardian (s) (please Specify the relationship)
vi) Child himself/herself

10. Reasons for leaving the family
i) Abuse by parent(s)/guardian(s)/step parents(s)
ii) In search of employment
iii) Peer group influence
iv) Incapacitation of parents
v) Criminal behaviour of parents
vi) Separation of Parents
vii) Demise of parents
viii) Poverty
ix) Others (please specify)

11. Types of abuse met by the child
i) Verbal abuse – parents/siblings/ employers/others (pl. specify)
ii) Physical abuse
iii) Sexual abuse parents/siblings/ Employers/others (Pl. specify)
iv) Others – parents/siblings/ employers/others (pl. Specify)

12. Types of ill-treatment met by the child.
i) Denial of food – parents/siblings employers/other (pl. specify)
ii) Beaten mercilessly – parents/ Siblings/employers/other (pl. specify)
iii) Causing injury – parents/ siblings/employers/other (pl. specify)
iv) Other (pl. specify) – parents/ siblings/ employers/others (pl. specify)

13. Exploitation faced by the child

i) Extracted work without payment
ii) Little (low) wages with longer duration of work
iii) Others (pl. specify)

14. Health status of the child before admission.
i) Respiratory disorders - present / not known / absent

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ii) Hearing impairment - present / not known / absent
iii) Eye diseases - present / not known / absent
iv) Dental disease - present / not known / absent
v) Cardiac diseases - present / not known / absent
vi) Skin disease - present / not known / absent
vii) Sexually transmitted diseases - present / not known / absent
viii) Neurological disorders - present / not known / absent
ix) Mental handicap - present / not known / absent
x) Physical handicap - present / not known / absent
xi) Others (pl. specify) - present / not known / absent

15. With whom the child was staying prior to admission
i) Parent(s) – Mother / Father / Both
ii) Guardian(s) – Relationship
iii) Friends
iv) On the street
v) Night shelter
vi) Orphanages / Hostels/ Similar Homes
vii) Other (pl. specify)

16. Visit of the parents to meet the child
i) Prior to institutionalization –
Frequently / Occasionally / Rarely / Never
ii) After institutionalization -
Frequently / Occasionally / Rarely / Never

17. Visit of the child to his family
i) Prior to institutionalization –
Frequently / Occasionally / Rarely / During festival times / During summer holidays / Whenever fallen sick / Never
ii) After institutionalization –
Frequently / Occasionally / Rarely / During festival times / During summer holidays / Whenever fallen sick / Never

18. Correspondence with parents -
i) Prior to institutionalization –
Frequently / Occasionally / Rarely / During festival times / During summer holidays / Whenever fallen sick / Never
ii) After institutionalization –
Frequently / Occasionally / Rarely / During festival times / During summer holidays / Whenever fallen sick / Never

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B CHILDHOOD HISTORY (up to the age of 12 years)

19. Diet of mother during pregnancy:
 - i) Taken nutritious diet
 - ii) Ordinary diet
 - iii) Inadequate food intake

20. Health during pregnancy
 - i) Mother infected with contagious diseases
 - ii) Mother consumed/ used contraceptives
 - iv) Intake of antibiotics
 - v) No such details available

21. Birth details
 - i) Normal delivery/ prolonged delivery/ caesarian
 - ii) Under weight/ normal weight/ over weight

22. Details of immunization provided

23. Details of handicap

i)	Hearing impairment	By birth/ After accident/ diseases
ii)	Speech impairment	By birth/ After accident/ diseases
iii)	Physical handicap	By birth/ After accident/ diseases
iv)	Mental handicap	By birth/ After accident/ diseases
v)	Others (please specify)	

C. FAMILY DETAILS:

24. Household Composition:

Sr. no.	Name & Relationship	Age	Sex	Education	Occupation	Income
1	2	3	4	5	6	7

Health	History of Mental Illness	Handicap	Habit	Socialization
8	9	10	11	12

25. Type of family:

Nuclear family / joint family/ broken family

26. Relationship among the family members:

i) Father & mother Cordial/ Non cordial/ Not known
ii) Father & child Cordial/ Non cordial/ Not known
iii) Mother & child Cordial/ Non cordial/ Not known
iv) Father & siblings Cordial/ Non cordial/ Not known
v) Mother & siblings Cordial/ Non cordial/ Not known
vi) Juvenile & siblings Cordial/ Non cordial/ Not known

27. History of crime committed by family members:

Sr. no.	Relationship	Nature of Crime	Arrest if any made	Provide of confinement	Punishment awarded
1	Father				
2	Step Father				
3	Mother				
4	Step Mother				
5	Brother a. b. c.				
6	Sister a. b. c.				
7	Child				
8	Other (uncle/ aunty/ grandparents)				

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28. Properties owned by the family:
 i) Landed properties (pl. specify the area)
 ii) Household articles- Cows/ Cattle/ Bull
 iii) Vehicles- two wheeler/ three wheeler/ four wheeler (lorry/ bus/ car/ tractor/ jeep)
 iv) Others (please specify)
29. Marriage details of family members:
 i) Parents Arranged/ Special Marriage/ Local Union
 ii) Brothers Arranged/ Special Marriage/ Local Union
 v) Sisters Arranged/ Special Marriage/ Local Union
30. Social activities of family members:
 i) Participate in social and religious functions
 ii) Participate in cultural activities
 iii) Does not participate in social and religious functions
 iv) Not known
31. Parental care towards juvenile before admission:
 i) Over protection
 ii) Affectionate
 iii) Attentive
 iv) Not affectionate
 v) Not attentive
 vi) Rejection

D. ADOLESCENCE HISTORY (Between 12 and 18 years)

32. Puberty
 Early
 Middle age
 Late

33. Details of delinquent behaviour if any
 i) Stealing
 ii) Pick pocketing
 iii) Arrack selling
 iv) Drug pedalzing
 v) Petty offences
 vi) Violent crime
 vii) Rape
 viii) None of the above
 ix) Others (please specify)

34. Reason for delinquent behaviour
 i) Parental neglect
 ii) Parental overprotection
 iii) Parents criminal behaviour
 vi) Parents influence (negative)
 vii) Peer group influence

viii) To buy drugs/alcohol
ix) Others (pl. specify)

35. Habits

A	*B*
i) Smoking	i) Watching TV/movies
ii) Alcohol consumption	ii) Playing indoor/outdoor games
iii) Drug use (specify)	iii) Reading books
iv) Gambling	iv) Religious activities
v) Begging	v) Drawing/painting/acting/singing
vi) Any other	vi) Any other

E. EMPLOYMENT DETAILS

Employment details of the juveniles prior to entry into the Home:

Sr. No.	Details of Employment	Duration	Wages Earned
i	Coolly		
ii	Rag-picking		
iii	Mechanic		
iv	Hotel		
v	Tea shop work		
vi	Shoe polish		
vii	Household works		
viii	Other (pl. specify)		

36. Details of income utilization:
i) Sent to family to meet family need
ii) For dress materials
iii) For gambling
iv) For prostitution
v) For alcohol
vi) For drug
vii) For smoking
viii) Savings

37. Details of savings
i) With employers
ii) With friends
vi) Bank/Post Office
vii) Others (pl. specify)

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38. Duration of working hours
 i) Less than six hours
 ii) Between six and eight hours
 iii) More than eight hours

F. EDUCATIONAL DETAILS

39. The details of education of the juvenile prior to the admission to Children's Home
 i) Illiterate
 ii) Studied up to V Standard
 iii) Studied above V Std but below VIII Standard
 iv) Studied above VIII Std but below X Standard
 v) Studied above X Standard

40. The reason for leaving the School
 i) Failure in the class last studied
 ii) Lack of interest in the school activities
 iii) Indifferent attitude of the teachers
 iv) Peer group influence
 v) To earn and support the family
 vi) Sudden demise of parents
 vii) Rigid school atmosphere
 viii) Absentism followed by running away from school
 ix) Others (pl. specify)

41. The details of the school in which studied last:
 i) Corporation/Municipal/Panchayat Union
 ii) Government/SC Welfare School/BC Welfare School
 iv) Private management
 v) Convents

42. Medium instruction:
 Hindi/English/Urdu/Tamil/Malayalam/Kannada/ Telugu
 Other language (please specify)

43. After admission to Children's Home, the educational attainment from the date of admission till date;

 No. of years Class studied Promoted /detained

44. Vocational training undergone form the date of admission into Children's Home till date.

 No. of years Name of Vocational Trade Proficiency Attained

45. Extra curricular activities developed form the date of admission into the Children's Home till date
 i) Scout
 ii) Sports (please specify)
 iii) Athletics (please specify)
 iv) Drawing
 v) Painting
 vi) Others (pl. specify)

G. MEDICAL HISTORY

46. Height and weight at the time of admission:
47. Physical condition:
48. Medical history of child (gist):
49. Medical history of parent/guardian (gist):
50. Present health status of the child:

Sr. No.	Annual Observation	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1	Date of review				
2	Height				
3	Wight				
4	Nutritious diet given				
5	Stress Disease				
6	Dental				
7	ENT-Tonsils				
8	Eternal eye problem: vision				
	Left				
	Right				

51. Height and Weight Chart:

Date, Month & Year	Height	Admissible Weight	Actual Weight

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H. SOCIAL HISTORY

52. Details of friendship prior to admission into Children's Home:
 - i. Co-workers
 - ii. School/Classmate
 - iii. Neighbours
 - iv. Others (pl. specify)

53. Majority of the friends are
 - i. Educated
 - ii. Illiterate
 - iii. The same age group
 - iv. Older in age
 - v. Younger in age
 - vi. Same sex
 - vii. Opposite sex

54. Details of membership in group (please specify details)
 - i. Associated with cine fans association
 - ii. Association with religious group
 - iii. Associated with arts and sports club
 - iv. Associated with gangs
 - v. Associated with voluntary social service league
 - vi. Others (please specify)

55. The position of the child in the groups/league
 - i. Leader
 - ii. Second level leader
 - iii. Middle level functionary
 - iv. Ordinary member

56. Purpose of taking membership in the group:
 - i. For social service activities
 - ii. For leisure time spending
 - iii. For pleasure seeking activities
 - iv. For deviant activities
 - v. Others (please specify)

57. Attitude of the group / league
 i. Respect the social norms and follow the rules
 ii. Interested in violating the norms
 iii. Impulsive in violating the rules

58. The location/meeting point of the groups
 i. Usually at fixed place
 ii. Places are changed frequently
 iii. No specific places
 iv. Meeting point is fixed conveniently

59. The reaction of the society when the child first came out of the family
 i. Supportive
 ii. Rejection
 iii. Abuse
 iv. Ill-treatment
 v. Exploitation

60. The reaction of the police towards child
 i. Passionate
 ii. Cruel
 iii. Abuse
 iv. Exploitation
 v. Ill-treatment

61. The response of the general public towards the child

HISTORY OF THE CHILD (GIST)

i. Education
ii. Health
iii. Vocational training
iv. Extra curricular activities
v. Others

Suggestion of Child Welfare Officer/ Probation Officer after orientation to juvenile/child and the response towards orientation.

Follow up by Child Welfare Officer/ Probation Officer/ Case Worker/ Social Worker

Quarterly Review of Case History by Managing Committee

SUPERINTENDENT/
WELFARE OFFICER/PROBATION OFFICER

INDEX

FORM XXI

[Rules 51(12)(a), 55(1)(o) and 88(1)(k)]

INDIVIDUAL CARE PLAN

Individual care plan for each child shall be prepared following the principle of the best interest of the child. In preparing individual care plan the care options in the following order of preferences shall be considered:

(i) Preserving the biological family
(ii) Kinship Care
(iii) In-country adoption
(iv) Foster Care
(v) Inter-country Adoption
(vi) Institutional Care

Case/Profile No. of 20____(year) of the Board/Committee

Admission No.

Date of Admission:

A. PERSONAL DETAILS

1. Name of the Child:
2. Age:
3. Sex: Male/Female
4. Father's/Mother's name:
5. Nationality:
6. Religion/caste:
7. Educational Attainment:
8. Summary of Case History:
 - Health needs
 - Emotional and psychological support needed
 - Educational and Training needs
 - Leisure, creativity and play
 - Attachments and Relationships
 - Religious beliefs
 - Protection from all kinds of abuse, neglect and maltreatment

- Social mainstreaming
- Follow-up post release/restoration

B. FORTNIGHTLY PROGRESS REPORT OF PROBATIONER

Part One

1. Name of the Probation Officer/Case Worker
2. For the month of
3. Registration No.
4. Competent Authority
5. Profile No.
6. Name of the Child
7. Date of Supervision Order
8. Address of the Child
9. Period of Supervision

Part Two

Places of interview Dates

..... ----------
..... ----------
..... ----------

1. Where the child is residing?
2. Progress made in any educational/training course.
3. What work he/she is doing and his/her monthly average earning, if employed.
4. Savings kept in the Post Office.
5. Savings Bank Account in his/her name.
6. Remarks on his/her general conduct and progress.
7. Whether property cared for?

Part Three

1. Any proceedings before the competent authority or
 a) Variation of conditions of bond
 b) Change of residence
 c) Other matters
2. Period of supervision completed on.....
3. Result of supervision with remarks (if any)
4. Name and Addresses of the parent or guardian or fit person under whose care the juvenile is to live after the supervision is over.

Date of report _____Signature of the Probation Officer/Case Worker_____

INDEX

C. PRE-RELEASE REPORT

Tick whichever is applicable

Final Release ☐ **Transfer** ☐

1. Details of place of transfer and concerned authority responsible in the place of transfer/release
2. Details placement of the juvenile/child in different institutions
3. Training undergone and skills acquired
4. Final progress report of the officer-in-charge/probation officer/child welfare officer/case worker/social worker (to be attached)
5. Date of release/transfer
6. Date of repatriation
7. Requisition for escort if required
8. Identification of escort
9. Recommended rehabilitation plan including possible placements
10. Sponsorship requirement and report, if applicable
11. Identification of Probation Officer/Case worker/social worker/non-governmental organisation for post-release follow-up
12. Memorandum of Understanding with non-governmental organisation identified for postrelease follow-up
13. Identification of sponsorship agency/individual sponsor for the child post-release, if any
14. Memorandum of Understanding between the sponsoring agency and individual sponsor
15. Details of Savings Account of the child, if any
16. Details of child's earnings and belongings if any
17. Details of awards/rewards due to the child if any
18. Opinion of the child
19. Any other information

Note: Pre-release report shall be prepared 6 months prior to the date of release/transfer of juvenile/child and shall take into account the recommendations of the last review report and all other relevant information.

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D. POST-RELEASE REPORT

1. Status of Bank Account : Closed / Transferred
2. Earnings and belongings of the child : handed over to the child or his/her parents/guardians – Yes/No
3. First interaction report of the probation officer/child welfare officer/case worker/social worker/non-governmental organisation identified for follow-up with the child post-release
4. Placement of the juvenile/child if any
5. Family's behaviour towards the child
6. Social milieu of the child, particularly attitude of neighbours/community
7. How is the child using the skills acquired?
8. Whether the child has been admitted to a chool or vocation? Give date and name of the school/institute/any other agency
9. Report of second and third follow-up interaction with the child after two months and six months respectively

INDEX

FORM XXII
[Rule 66 (2)]
ESCORT ORDER

Case No..... [In the matter of Boy/Girl Child
Aged about.....year taken Charged for sole custody under Section 33(3) of the Juvenile Justice Act 2000]
The Parents of the boy/girl child are reported to be residing at:
He/She therefore be sent under supervision of a proper police/ non-governmental organization escort to the_____
_____.
For tracing and for handing over to the parents or close relatives of the said Boy Child/Girl Child residing at the aforesaid address or at other Place which may be shown by the Child, if no such parents or relative are traced or if traced but they are unwilling to take charge of the boy/girl be kept in the custody of the Superintendent.....Children's Home and the said Boy/Girl child be produced before the concerned Child Welfare Committee for further orders.

Orders

Pending Escort, the said Boy/Girl Child shall remain in Children's Home, residing at present.at-- ----------. The State/District Child Protection Unit, or Police Department or non-governmental organisation/ Childline shall positively make immediate arrangement not less than 15 days from the date of receipt of this order by him and send the said Boy Child/Girl Child at his/her aforesaid place of residence.

Dated this.....day of.....200

Chairperson/Member
Child Welfare Committee

CC to:

1. The Superintendent, Children Home,_____
2. The State/District Child Protection Unit or non-governmental organisation or Childline_____

Ref.: 1. Order of admission of minor.....born on.....Profile No.....
By order and in the name of the Governor of Gujarat,

Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 12 REGISTERED No. G/GNR/2

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Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOOD,CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th February ,2011

CONSUMER PROTECTION ACT,1986

No.GTH/2011/ 17/CPA/102010/1049452 /D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri. M.T.Unadkat, Retired Judge, City Civil & Sessions Court, as the President of Consumer Disputes Redressal Forum, Vadodara with headquarters at Vadodara.

Shri. **M.T.Unadkat,** shall hold his office for a period of five years or up to the age of 65 years whichever is earlier from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Vadodara

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to the Govt. of Gujarat.

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FOOD,CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th February ,2011

CONSUMER PROTECTION ACT,1986

No.GTH/2011/18/CPA/102010/1049452 /D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri C.H. Patel, Retired Judge, City Civil & Sessions Court, as the President of Consumer Disputes Redressal Forum, Junagadh with headquarters at Junagadh.

Shri **C.H.Patel,** shall hold his office for a period of five years or up to the age of 65 years whichever is earlier from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Junagadh.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to the Govt. of Gujarat.

FOOD,CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th February ,2011

CONSUMER PROTECTION ACT,1986

No.GTH/2011/19/CPA/102010/1049452 /D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri A.R. Patel, Retired Principal District Judge, Mehsana, as the President of Consumer Disputes Redressal Forum, Surat with headquarters at Surat.

Shri **A.R.Patel,** shall hold his office for a period of five years or up to the age of 65 years whichever is earlier from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Surat.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to the Govt. of Gujarat.

FOOD,CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th February ,2011

CONSUMER PROTECTION ACT,1986

No.GTH/2011/20/CPA/102010/1049452 /D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),1 (A) and (2) of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri A.H.Shah, Retired Judge, City Civil Court& Addl. Sessions Court, as the President of Consumer Disputes Redressal Forum, Surendranagaar with headquarters at Surendranagar.

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Shri **A.H.Shah,** shall hold his office for a period of five years or up to the age of 65 years whichever is earlier from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Surendranagar.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to the Govt. of Gujarat.

FOOD,CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th February ,2011

CONSUMER PROTECTION ACT,1986

No.GTH/2011/21/CPA/102010/1049452 /D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a) 1(A) & 2 of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, on account of admistrative convenience Government of Gujarat hereby transfers Shri **H.K.Thakor,** President, District Consumer Disputes Redressal Forum, Junagadh, as President, District Consumer Disputes Redressal Forum, Banaskantha, with headquarters at Palanpur.

The transfer will take effect once Shri C.H.Patel, Retired Judge City & Sessions Court takes over the charge of the post of President, District Consumer Disputes Redressal Forum, Junagadh.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to the Govt. of Gujarat.

FOOD,CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th February ,2011

CONSUMER PROTECTION ACT,1986

No.GTH/2011/22/CPA/102010/1049452 /D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a) 1(A) & 2 of section-10 of the Consumer Protection Act,1986 as amended in 1993 and 2002, , Government of Gujarat hereby appoints Shri N.A.Acharya, at present working as Judicial Member of Consumer Disputes Redressal Commission, Ahmedabad, as the President, District Consumer Disputes Redressal Forum, Anand with headquarters at Anand.

Shri **N.A.Acharya** shall resume aforesaid office at Anand only after his resignation from the present post (Judicial Member of Consumer Disputes Redressal Commission, Ahmedabad) is accepted. He shall hold his office for a period of five years from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Anand or up to the age of 65 years whichever is earlier.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to the Govt. of Gujarat.

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FOOD,CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th February ,2011

CONSUMER PROTECTION ACT,1986

No.GTH/2011/23/CPA/102010/1049452/D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a) 1(A) & 2 of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri K.H.Gokani, at present working as Precident of Consumer Disputes Redressal Forum, Bhavnagar as the President, District Consumer Disputes Redressal Forum, Bhavnagar with headquarters at Bhavnagar.

Shri **K..H.Gokani**, shall hold his office up to the date 21.1.2012 or the age of 65 years whichever is earlier from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Bhavnagar.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to the Govt. of Gujarat.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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सत्यमेव जयते

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EXTRAORDINARY

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PART IV-A
Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

અન્ન નાગરિક પુરવઠા અને ગ્રા. બા. વિભાગ,

આદેશ

સચિવાલય, ગાંધીનગર, ૧૮મી ફેબ્રુઆરી, ૨૦૧૧

ક્રમાંક : જીટીએચ-૨૦૧૧-૨૪-ઈસીએ-૧૦-૨૦૧૧-૪૨૮૯૨-બ .- ગુજરાત આવશ્યક ચીજવસ્તુ (પરવાના, નિયંત્રણ અને જથ્થા જાહેરાત) આદેશ-૧૯૮૧ની કંડિકા-૨૪(૧) હેઠળ મળેલ સત્તા હેઠળ રાજ્ય સરકાર નીચે મુજબનો સુધારા આદેશ બહાર પાડે છે.

(૧) આ આદેશ ગુજરાત આવશ્યક ચીજવસ્તુ (પરવાના, નિયંત્રણ અને જથ્થા જાહેરાત) (સુધારા) આદેશ-૨૦૧૧ કહેવાશે.

(૨) આ આદેશ તા. ૧-૪-૨૦૧૧ થી અમલમાં આવશે.

(૩) આ આદેશ સમગ્ર ગુજરાત રાજ્યને લાગુ પડશે.

(૪) સુધારો : - ગુજરાત આવશ્યક ચીજવસ્તુ (પરવાના, નિયંત્રણ અને જથ્થા જાહેરાત) આદેશ-૧૯૮૧ હેઠળના પ્રવર્તમાન ફોર્મ-'અ', ફોર્મ-બ તથા ફોર્મ 'ક' રદ કરી તેના બદલે હવેથી નવા નીચે દર્શાવ્યા મુજબના ફોર્મ-અ, ફોર્મ-બ અને ફોર્મ-ક ને અમલમાં મુકવામાં આવે છે.

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ફોર્મ-''અ''

(જુઓ ક્લોઝ ૪(૧))

ગુજરાત આવશ્યક ચીજવસ્તુ (પરવાના નિયંત્રણ અને જથ્થા જાહેરાત) આદેશ ૧૯૮૧

આવશ્યક ચીજ વસ્તુનો પરવાનો મેળવવા/પરવાનો રીન્યુ કરાવવા માટેની અરજી

(આવશ્યક ચીજ વસ્તુનું નામ વિગત દર્શાવવી)

પ્રતિ,

મામલતદારશ્રી,

તાલુકો :

જીલ્લો :

૧. (અ) અરજી કરનાર એકમનું નામ :-

(બ) અરજી કરનાર એકમનો પ્રકાર :-

(૧) વ્યક્તિગત (૨) ભાગીદારી પેઢી (૩) કંપની (૪) સહકારી સંસ્થા

૨. (અ) વ્યક્તિગત ધોરણે અરજી કરનાર અથવા ભાગીદારી પેઢી/કંપની/સહકારી સંસ્થાવતી અરજી કરનારની વિગત :-

અટક..... નામ.....પિતા/પતિનું નામ.....

(બ) અરજી કરનારનું રહેણાંકનું સરનામું :-

ઘર નં : શેરી/મહોલ્લો/ફળીયું :

ગામ નં. :.....તાલુકો : જીલ્લો :

૩. રાષ્ટ્રીયતા :-

૪. ટેલીફોન નંબર મોબાઈલ નંબર :.....ઈમેલ.....

૫. ઉત્પાદક જથ્થાબંધ વિક્રેતા, છુટક વિક્રેતા કે ફેરીયા પૈકી જે કક્ષા માટે પરવાનો જોઈતો હોય તેની વિગત :

૧. ઉત્પાદક ૨. જથ્થાબંધ વિક્રેતા ૩. કમિશન એજન્ટ

૪. છુટક વિક્રેતા ૫. ફેરિયા

૬. અરજદારના ધંધાના સ્થળ અંગેની વિગતો જેવી કે મકાન નં., મહોલ્લો, શહેર અથવા ગામ અને તાલુકો તથા જીલ્લો :

ધંધાનું સ્થળ	સરનામુ			ક્ષેત્રફળ (ચો.મી.)
રજીસ્ટ્રર ઓફિસ	સ્થળ	તાલુકો	જીલ્લો	

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જો અરજદાર પેઢિ/કંપની/સહકારી સંસ્થા હોય તો ભાગીદારો અંગેની વિગતો											

* (૧) બિલકુલ નિરક્ષર (અભણ) તેની સામે -૧
(૨) ધો. ૧ થી ૭ સુધી ભણેલા તેની સામે -૨
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(૮) ટેકનીકલ સ્નાતક, એમ.બી.એ., કાયદા સ્નાતક -૮

\# (૧) ખેતી
(૨) ધંધો/વેપાર/વ્યવસાય
(૩) ઉદ્યોગકાર
(૪) કારીગર
(૫) પ્રોવીડન્ડ ફંડ સાથેની નોકરી એટલે કે (સરકારી/ખાનગી/સંગઠિત ક્ષેત્રની નોકરીઓ)
(૬) પ્રોવીડન્ડ ફંડ વગરની નોકરી એટલે કે, (અસંગઠિત ક્ષેત્રમાં નોકરી દા.ત. નાના ખાનગી એકમો)
(૭) અન્ય

આથી હું જાહેર કરુ છું કે ઉપર જણાવેલ વિગતો/હકીકત મારી જાણકારી અને માન્યતા મુજબ સંપૂર્ણ સાચી છે. **અરજદારની સહી**

૭. અરજીની તારીખે અરજદારીની પાસેની તમામ આવશ્યક ચીજ વસ્તુના જથ્થાની વિગતો અને જથ્થો સંગ્રહ કરેલ હોઈ/કરવાનો હોઈ તે ગોડાઉનની સંપૂર્ણ વિગતો :- (દરેક આવશ્યક ચીજ વસ્તુના સંદર્ભમાં વિગતો અલગ અલગ દર્શાવવી).

અ.નં.	સંગ્રહ કરવામાં આવેલ ગોડાઉનની વિગતો		આવશ્યક ચીજ વસ્તુનું નામ	જથ્થો
૧	ગોડાઉનનું સરનામું મકાન નં.....શેરી/ફળીયું..... તાલુકો.....	ગોડાઉનનું ક્ષેત્રફળ..... ચો.મી.		
૨	ગોડાઉનનું સરનામું મકાન નં.....શેરી/ફળીયું..... તાલુકો.....	ગોડાઉનનું ક્ષેત્રફળ..... ચો.મી.		
૩	ગોડાઉનનું સરનામું મકાન નં.....શેરી/ફળીયું..... તાલુકો.....	ગોડાઉનનું ક્ષેત્રફળ..... ચો.મી.		
૪	ગોડાઉનનું સરનામું મકાન નં.....શેરી/ફળીયું..... તાલુકો.....	ગોડાઉનનું ક્ષેત્રફળ..... ચો.મી.		

૮. અરજદાર આ અંગે અગાઉ અન્ય કોઈ આદેશ હેઠળ ગુજરાત રાજ્યમાં પરવાનો ધરાવતા હતા કે કેમ ? (જો તેમ હોય તો તે અંગેની વિગત તથા કોઈ કાર્યવાહી-પરવાનો મોકુફ/રદ થયેલ હોય તો તેની વિગતો)

પરવાના નંબર	જે ઓર્ડર હેઠળ ઈસ્યુ થયેલ હોય તેનું નામ	પગલાં	પરવાનો મોકુફ/રદ	વર્ષ

૯. ચાલુ વર્ષ અને છેલ્લા ત્રણ વર્ષ દરમ્યાન આવશ્યક ચીજ વસ્તુના જથ્થાનું વાર્ષિક ટર્ન ઓવર :-

(વિગતો વર્ષવાર જણાવવી)

ક્રમ	આવશ્યક ચીજ વસ્તુનું નામ	જથ્થાનું વાર્ષિક ટર્નઓવર (છેલ્લા ત્રણ વર્ષની વિગત)			ચાલુ વર્ષ દરમ્યાન જથ્થાનું સંભવિત ટર્ન ઓવર
		વર્ષ	વર્ષ	વર્ષ	

૧૦. આ અરજી કર્યાના વર્ષની અગાઉના બે વર્ષ દરમ્યાન ભરેલ આવકવેરાની વિગતો :

(વર્ષવાર અલગ દર્શાવવી)

ઈન્કમટેક્ષનું પાનકાર્ડ નંબર	વર્ષ	ભરેલ આવક વેરો

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૧૧. કેન્દ્રીય/રાજ્યના 'વેટ' ટેક્સ ભરેલ હોય તેની છેલ્લા બે વર્ષની વિગતો :-

(વર્ષવાર અલગ દર્શાવવી)

(અ) વેટ નંબર	રાજ્ય વેટ ચૂકવણું	વર્ષ
(બ) કેન્દ્રીય વેચાણવેરા નંબર	કેન્દ્રીય વેચાણવેરા ચૂકવણું	વર્ષ

૧૨. આવશ્યક ચીજ વસ્તુ સંબધિત કોઇ ગુનામાં અરજદાર ક્યારેય કસુરવાર થયેલ છે કે કેમ ? જો તેમ હોય તો તેની વિગતો :-

વર્ષ	કસુરવાર ઠરેલ તેની વિગત	કોર્ટ ઓર્ડર	વિગત

૧૩. આથી હું જણાવુ છું કે, આજની તારીખે મારી હસ્તક ઉપર જણાવ્યા મુજબની આવશ્યક ચીજ વસ્તુ અને તે ઉપર જણાવેલ સ્થળે/જગ્યાએ જથ્થો સંગ્રહ કરેલ/ રાખેલ છે.

મેં આવશ્યક ચીજ વસ્તુ (પરવાના, નિયંત્રણ અને જથ્થા જાહેરાત) આદેશ-૧૯૮૧ હેઠળના ફોર્મ-'બી'માં શરતોને કાળજી પૂર્વક વાંચી છે.

* (અ) મે અગાઉ આ પ્રકારના પરવાના માટે/અન્ય કોઇ આવશ્યક ચીજ વસ્તુના પરવાના માટે આ જીલ્લામાં અરજી કરેલ નથી.

* (બ) મે આ જીલ્લામાં..... ના પરવાના માટે અરજી કરેલ હતી/જે.....ના રોજ માન્ય રહેલ નથી/ના મંજૂર થયેલ હતી.

* (ક) હું મારા પરવાના નં.....ને પાંચ વર્ષ માટે રીન્યુ કરવા માટે અરજી કરૂ છું.

* (ડ) હું આથી મને ઈસ્યુ કરવામાં આવેલ લાયસન્સ નંબર.....તા..... ને પુનઃ ઈસ્યુ કરવા માટે અરજી કરૂ છું.

આથી હું જાહેર કરું છું કે ઉપર જણાવેલ વિગતો/હકીકત મારી જાણકારી અને માન્યતા મુજબ સંપૂર્ણ સાચી છે.

* (જે લાગુ ના પડતું હોય તે છેકી નાખવું).

સ્થળ :

તારીખ : ----------

અરજદારની સહી.

ફોર્મ-''બ''

(જુઓ ક્લોઝ ૪(૨))

ગુજરાત આવશ્યક ચીજવસ્તુ (પરવાના નિયંત્રણ અને જથ્થા જાહેરાત) આદેશ ૧૯૮૧

આવશ્યક ચીજ વસ્તુના ખરીદ, વેચાણ, વેચાણ માટે સંગ્રહ માટેનો પરવાનો

પરવાના ધારકનો પાસપોર્ટ સાઈઝનો ફોટો તથા તેના પર પરવાના અધિકારીની કચેરીનું રાઉન્ડ સીલ

બીન તબદીલીપાત્ર

રાજ્ય સરકાર દ્વારા ગુજરાત આવશ્યક ચીજવસ્તુ (પરવાના નિયંત્રણ અને જથ્થા જાહેરાત) આદેશ-૧૯૮૧ હેઠળની શરતોને જોગવાઈઓ તથા નીચે જણાવેલ શરતોને આધીન આ પરવાનો ઈસ્યુ કરવામાં આવે છે.

૧. પરવાના નં. :- ઈસ્યુ કર્યા તા.....

૨. પરવાનાની કક્ષા :-

(અ) ૧. ઉત્પાદક ૨. જથ્થાબંધ વિક્રેતા ૩. કમિશન એજન્ટ ૪ છુટક વિક્રેતા ૫. ફેરિયા

૩. એકમનો પ્રકાર :-

(૧) વ્યક્તિગત (૨) ભાગીદારી પેઢી (૩) કંપની (૪) સહકારી સંસ્થા

૪. પરવાનેદાર/એકમનું નામ :-

અટક.....નામ.....પિતા/પતિનુ નામ.....

રહેણાંકનું સરનામું :-

ઘર નં :- શેરી/મહોલ્લો/ફળીયું.....

ગામ :- તાલુકો : જીલ્લો :

ટેલીફોન નંબર :.....મોબાઈલ નંબર :- ઈમેલ.....

૫. ભાગીદારોની વિગત (પેઢી/એકમના સંદર્ભમાં) :-

અ.નં.	પુરૂ નામ	સરનામું	પેઢીમાં હોદ્દો

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૬. ધંધાનું સ્થળ :-

ધંધાનું સ્થળ	સરનામુ			ક્ષેત્રફળ (ચો.મી.)
રજીસ્ટ્રર ઓફિસ	સ્થળ	તાલુકો	જીલ્લો	

૭. (અ) આવશ્યક ચીજ વસ્તુઓ :-

.....

.....

(બ) નવી ઉમેરવામાં આવી હોય તો તેની વિગત :-.....

.....

લાઈસન્સ સત્તાધિકારીના સહી/સિક્કો/તા.....

૮. ગોડાઉનની વિગત (આ જણાવેલ ગોડાઉન સિવાય અન્યત્ર સંગ્રહ કરી શકાશે નહીં) :-

(અ) ગોડાઉનનું સ્થળ	સરનામુ			ક્ષેત્રફળ (ચો.મી.)
	સ્થળ	તાલુકો	જીલ્લો	

(બ) ગોડાઉનના સ્થળ ફેરફાર (જો થયેલ હોય તો તેની વિગત) :-

ફેરફાર કરેલ નવી જગ્યા :-

.....

લાઈસન્સ સત્તાધિકારીના સહી/સિક્કો/તા.....

લાઈસન્સ તાજુ (રીન્યુ) કરવા સંબંધિત વિગતો

આ લાઈસન્સ નીચેની મુદત સુધી તાજુ (રીન્યુ) કરવામાં આવે છે.

ક્રમ	તારીખ/સમયગાળો	
૧.	તા. થી તા.	લાઈસન્સ સત્તાધિકારીની સહિ. તા. સિક્કો

શરતો

૧. દરેક લાઈસન્સ ધરાવનારે પોતે સ્ટોર કરેલી આવશ્યક ચીજવસ્તુઓ યોગ્ય સ્થિતિમાં જળવાય અને આવશ્યક ચીજવસ્તુઓને જમીનના ભેજ, વરસાદ, આગ, જીવાત, ઉંદર જેવા પ્રાણીઓ, પક્ષીઓથી અને આવા બીજા કારણે નુકશાન ન થાય તે માટે પુરતા પગલાં લેવા જોઈશે. લાઈસન્સ ધરાવનારે એ પણ જોવું કે આવશ્યક ચીજવસ્તુઓને બગાડવાનો સંભવ હોય તેવા રસાયણિક ખાતરો, જંતુનાશક દવાઓ અને ઝેરી રસાયણો તેમજ ગોદામમાં આવશ્યક ચીજવસ્તુઓ સાથે અથવા આવશ્યક ચીજવસ્તુઓના સ્ટોકની એકદમ નજીકમાં સ્ટોક થાય નહિ.

૨. (૧) રાજ્ય સરકારે અથવા લાઈસન્સ સત્તાધિકારીઓ આ અર્થે ખાસ માફી આપી હોય તે સિવાય, લાઈસન્સ ધરાવનારે પરિચ્છેદ ૭માં જણાવેલી તમામ આવશ્યક ચીજવસ્તુના લેવડદેવડ અથવા સોદાને લગતા દૈનિક હિસાબોનું રજીસ્ટર રાખવાનું રહેશે અને તેમાં નીચેની વિગતો ખરી દર્શાવવાની રહેશે.

(ક) દરેક દિવસનો શરૂઆતનો સ્ટોક (ઉઘડતો જથ્થો).

(ખ) ખરીદી કરીને મેળવેલો અથવા અન્ય રીતે દરેક દિવસે મેળવેલો જથ્થો અને તે કયા સ્થળેથી અને ક્યાંથી મળ્યો તે દર્શાવવું.

(ગ) દરેક દિવસે વેચાણથી પહોંચાડેલી અથવા અન્ય રીતે ખસેડેલ જથ્થો અને તે મોકલવાના નિયત સ્થળો અને

(ઘ) દરેક દિવસે બાકી રહેલો સ્ટોક. (બંધ જથ્થો).

૩. લાઈસન્સ ધરાવનાર, ગુજરાત આવશ્યક ચીજવસ્તુ (લાઈસન્સ, નિયંત્રણ અને સ્ટોક જાહેરાત) હુકમ, ૧૯૮૧ની જોગવાઈઓનું અથવા આવશ્યક ચીજવસ્તુ અધિનિયમ, ૧૯૫૫ (સન ૧૯૫૫ના ૧૦માં) હેઠળ બહાર પાડેલા આવશ્યક ચીજવસ્તુઓને લગતા સબંધકર્તા હુકમોનું પાલન કરવાનું રહેશે.

૪. લાઈસન્સ ધરાવનારે--

(૧) બજારમાં આવશ્યક ચીજવસ્તુઓનો પુરવઠો જળવાઈ રહે અને સહેલાઈથી મળતો રહે તેમાં બાધ આવે તે રીતે સટ્ટો કરીને કોઈ આવશ્યક ચીજવસ્તુઓની ખરીદી, વેચાણ, અથવા વેચાણ માટે તે સ્ટોર કરવાને લગતો કોઈ સોદો કરવો નહિ.

(૨) સામાન્ય રીતે વેચાણ માટે રાખવામાં આવતી આવશ્યક ચીજવસ્તુઓના પુરવઠાનું વેચાણ બંધ કરવું નહિ અથવા

(૩) આવશ્યક ચીજવસ્તુઓના પોતે કરેલા વેચાણના સબંધમાં, શરત-૬ને આધીન રહીને, નીચેના કરતાં વધુ નફાનો ગાળો લેવો નહિ.

(ક) પેટા પરિચ્છેદ (ખ) હેઠળ નકકી કરેલા કોઈ ગાળાને આધીન રહીને, યથાપ્રસંગ, લાઈસન્સ સત્તાધિકારી અથવા રાજ્ય સરકાર સાથે વિચાર વિનિમય કરીને જે તે લત્તા માટે, યથાપ્રસંગ, વેપારીઓ અથવા ઉત્પાદકોના પ્રતિનિધિમંડળે નકકી કરેલા ગાળાનો કોઈ અધિકત્તમ દર, અથવા

(ખ) રાજ્ય સરકારે નકકી કરેલા ગાળાનો કોઈ દર,

૫. લાઈસન્સ ધરાવનારે, જ્યાં તે પોતાનો ધંધો કરતો હોય તે જગાના પ્રવેશધ્વારે અથવા તેના સહેલાઈથી દેખાઈ આવે તેવા અન્ય કોઈ ભાગમાં પોતાનું નામ, વેચાણ માટે તેણે ધરાવેલી આવશ્યક ચીજવસ્તુઓના ભાવની યાદી આવશ્યક ચીજવસ્તુઓના સ્ટોકની પ્રાપ્યતા કે અપ્રાપ્યતા દર્શાવતું બોર્ડ ગુજરાતી ભાષામાં સુવાચ્ય રીતે લખીને દરરોજ પ્રદર્શીત કરવું જોઈશે.

૬. લાઈસન્સ ધરાવનારે, તે સમયે અમલમાં હોય તેવા કોઈપણ કાયદા હેઠળ કોઈ કિંમત નિયત કરેલી હોય, તો તે અથવા તેવી રીતે પ્રદર્શિત કરેલ કિંમત કરતાં વધુ કિંમતે આવશઅયક ચીજવસ્તુઓ વેચવી નહિ અથવા વેચવાની દરખાસ્ત કરવી નહિ.

૭. રાજ્ય સરકારે અથવા આ અર્થે લાઈસન્સ સત્તાધિકારીએ ખાસ માફી હોય તે સિવાય, લાઈસન્સ ધરાવનારે, દરેક ગ્રાહકને, પોતાનું નામ, સરનામું અને લાઈસન્સ નંબર, ખરીદનારનું નામ, સરનામું અને તેનો લાઈસન્સ નંબર (હોય તો તે) સોદાની તારીખ, વેચેલી આવશ્યક ચીજવસ્તુઓનો જથ્થો અને કઈ કિંમતે વેચી તે અને લીધેલી કુલ રકમ જણાવતી, યથાપ્રસંગ, ખરી પહોંચ, અથવા ઈનવોઈસ આપવાનું રહેશે. અને લાઈસન્સ સત્તાધિકારી અથવા આ અર્થે તેણે અધિકૃત કરેલા કોઈ અધિકારી જોવા માગે, ત્યારે તે ઉપલબ્ધ બને તે માટે તેની બીજી નકલ રાખવાની રહેશે.

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૮. પરંતુ ૧૫ રૂા. કરતાં વધુ ન હોય તેટલી કિંમતના છુટક વેચાણ અંગે, આવી કોઈ રસીદ અથવા ઈનવોઈસ, ગ્રાહકે માંગણી કરી ન હોય, તો આપવાનું જરૂરી રહેશે નહિ, પરંતુ વેચાણની તારીખ, તેવી રીતે વેચેલો આવશ્યક ચીજવસ્તુઓનો જથ્થો અને લીધેલી કિંમત દર્શાવતો આવા વેચાણનો ખરો અને ભુલચુક વગરનો હિસાબ રાખવાનો રહેશે.

૯. લાઈસન્સ ધરાવનારે, લાઈસન્સ સત્તાધિકારીને અથવા હુકમથી કલમ-૨૬ હેઠળ નિર્દિષ્ટ કરેલા કોઈ અધિકારીને અથવા લાઈસન્સ સત્તાધિકારીએ અથવા રાજ્ય સરકારે અધિકૃત કરેલા કોઈ અધિકારીને આવશ્યક ચીજવસ્તુઓ સ્ટોર કરવા, તેના વેચાણ કે ખરીદી માટે પોતે ઉપયોગમાં લીધેલી દુકાનમાં, ગોદામમાં અથવા સ્થળે પોતાનો સ્ટોક અને હિસાબો તપાસવા માટે અને તપાસ માટે આવશ્યક ચીજવસ્તુઓના નમુના લેવા માટે તમામ વ્યાજબી સમયે તમામ સગવડો આપવી જોઈશે.

૧૦. લાઈસન્સ ધરાવનારે આવશ્યક ચીજવસ્તુઓની ખરીદી, વેચાણ અને સ્ટોર કરવાના સબંધમાં શરતો ૧,૨,૭ અને ૮ મુજબ પાલન કરવાનું રહેશે. તથા તેના સંદર્ભમાં જણાવેલ રજીસ્ટર, પત્રકો તથા ઈનવોઈસમાં લખવાના ભાષાસબંધમાં અને રજીસ્ટરની જાણવણીના સબંધમાં રાજ્ય સરકારના આદેશોનું પાલન કરવાનું રહેશે.

૧૧. લાઈસન્સ ધરાવનારે નિયમિત બજારમાં કામકાજ કરવાના હોય તે બાબતમાં, પોતાના ધંધાના સબંધમાં હકુમત ધરાવનાર માર્કેટીંગ સત્તાધિકારી અને બીજી કોઈ બાબતમાં રાજ્ય સરકાર આ અર્થે માન્ય કરે તે મંડળ આપે તેવી સુચનાઓનું પાલન કરવું જોઈશે.

૧૨. લાઈસન્સ ધરાવનાર નિર્ધિષ્ટ કરેલા હોય તે સિવાયના અન્ય સ્થળોએ આવશ્યક ચીજવસ્તુઓ સ્ટોર કરવા માગે તો તેણે લાઈસન્સ સત્તાધિકારીને એવા કોઈ ગોદામનો ખરેખર કબજો લીધાની જાણ, તેના ખરેખર કબજો લીધાના ૩૬ કલાકમાં કરવી જોઈશે અને એવી જાણની બીજી નકલ પોતાની પાસે સાચવી રાખવાની રહેશે.

૧૩. આ લાઈસન્સ તાજું કરવા માટે જે તે સમયેની કોઈ અરજી સાથે જોડવાનું રહેશે.

૧૪. આ લાઈસન્સ ૩૧ મી ડીસેમ્બર,.....સુધી કાયદેસર રહેશે.

(લાઈસન્સ સત્તાધિકારી)

સ્થળ :-

તારીખ :-

IV-A-13-3

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ફોર્મ-"ક"

(જુઓ ખંડ-૧૭)

લાયસન્સ ધરાવનારે સંબંધિત લાયસન્સ સત્તાધિકારીને આપવાનું પત્રક

(૧) લાયસન્સ ધરાવનારનું પુરૂ નામ :- અટક ____ નામ ____ પિતા/પતિનું નામ ____

(૨) લાયસન્સ નંબર :- ____

(૩) જે તારીખે પખવાડિયા માટેનું પત્રક પુરૂ થતું હોય તે તારીખ :- ____

(૪)

અ. નં.	આવશ્યક ચીજ વસ્તુઓના નામ	શરૂઆતનો સ્ટોક	પખવાડિયા દરમ્યાન મેળવેલ સ્ટોક			કુલ સ્ટોક	પખવાડિયા દરમ્યાન સ્ટોક નિકાલની વિગતો				કુલ નિકાલ ૮+૧૧	સિલક ૭-૧૨	શેરાર્કસ
							વેચાણથી						
			ઉત્પાદન પ્રક્રિયાથી	ખરીદી કે અન્ય રીતે	કુલ ૪+૫નો સરવાળો	૩+૬નો સરવાળો	પ્રક્રિયાથી	ગુજરાત રાજ્યની અંદર	ગુજરાત રાજ્યની બહાર	કુલ ૯+૧૦			
૧	૨	૩	૪	૫	૬	૭	૮	૯	૧૦	૧૧	૧૨	૧૩	૧૪
(૧)													
(૨)													
(૩)													
(૪)													
(૫)													

તારીખ :-.....

સ્થળ :-.....

વેપારીની સહી :-.....

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

મુકેશ મોદી
સરકારના નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

Extra No. 14

REGISTERED No. G/GNR/2

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made **by the Government of Gujarat under the Central Acts**

PORTS AND TRANSPORT DEPARTMENT

Notification

Sardar Bhavan, Gandhinagar, 21st February, 2011

THE ROAD TRANSPORT CORPORATION ACT, 1950

No.GG/2011/12/STC/1098/476(i)/GH :- In exercise of the powers conferred by Sections (2) and (4) of section 5 of the Road Transport Corporation Act, 1950 read with Rule-3(1) of The Gujarat State Road Transport Corporation Rules, 1971 the Government of Gujarat hereby appoints Shri B. H. Ghodasara as Chairman of the Gujarat State Road Transport Corporation, vice Shri B. K. Sinha, IAS, Additional Chief Secretary, Ports & Transport Department Sachivalaya, Gandhinagar with immediate effect.

By order and in the name of the Governor of Gujarat.

A. M. TRIVEDI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 16 REGISTERED No. G/GNR/2

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

FOREST AND ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 14th February, 2011

WILDLIFE (PROTECTION) ACT, 1972

No.GVN/2011(4)/WLP/1092/3056/G1 (W) :- In exercise of the powers conferred by Section 64 read with section 28 of the Wildlife (Protection) Act, 1972 (53 of 1972) the Government of Gujarat hereby makes following rules further to amend the Gujarat Wildlife (Protection) Rules 1990 namely :

1. These rules may be called the Gujarat Wildlife (Protection) Rules, (Third Amendment) 2011.

2. In the Gujarat Wildlife (Protection) Rules, 1990, in Chapter 4, in Rule 19(2) in serial no 1(b), 2 following shall be inserted as under.

No.	Entry fees for Sanctuaries and National Parks other then the Gir National Park and Sanctuary	For Indian Nationals ₹	For Foreigner s US $
4	Camel/Ox driven two wheel cart up to 6 passengers and driver	₹120/-	$ 20/
5	Camel/Ox driven two wheel cart up to 12 passengers and driver	₹ 250/	$ 50
6	For every additional person	₹ 20/-	$ 5

All the Camels and Oxen, which will e authorized to enter the Sanctuary/National Park with carts, will have to be Vaccinated periodically by the authorized veterinary doctors and shall be allowed to enter into the Sanctuary/National Park upon production of Vaccination Certificate.

No such animal will be allowed to stay in the Sanctuary/National Park during night.

No compensation can be claimed by the owner of such an animal if it is injured/killed by wild animals.

By order and in the name of the Governor of Gujarat.

J. N. PATEL,
Under Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 17

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 22nd February, 2011.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/25/CPA/102010/1049452/D.- In exercise of the powers conferred by clause (b) of section 9 read with sub-section (1) (a), 1(A) and 2 of section-16 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri G. A. Ahuja, at present working as President of Consumer Disputes Redressal Forum, Mehsana as the Judicial Member of Consumer Disputes Redressal Commission, Ahmedabad, with headquarters at Ahmedabad.

Shri G. A. Ahuja, shall be resume aforesaid office at Ahmedabad only after his term as President, District Fourm, Mehsana gets over. He shall hold his office for a period of up to the date 28-2-2013 or up to the age of 67 years whichever is earlier from the date, he resumes the charge of his office as the Judicial Member of the Consumer Disputes Redressal Commission, Ahmedabad.

The terms and conditions shall be applicable as decided in the G.R.No. CPA/1098/2860/D, dated 30/11/2004, G.R.No. CPA/1098/2860/D, dated 15/2/2006 and 7/8/2006 issued by the State Government.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 22nd February, 2011.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/26/CPA/102011/15245/D.- In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) & 2 of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Mr. Bipinchandra D. Soni, Retired Registrar, Vigilance, High Court of Gujarat (in the cadre of District Judge), as the President of Consumer Disputes Redressal Forum, Ahemedabad (Rural) with headquarters at Ahmedabad,

Mr. Bipinchandra D. Soni, shall hold his office for a period of five years or up to the age of 65 years whichever is earlier from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Ahmedabad (Rural).

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer.

Government Central Press, Gandhinagar.

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REGISTERED No. G/GNR/2

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 21st February, 2011

WAKF ACT, 1995.

No.GK/8/WAKF/102011/12/142 E :- In exercise of the powers conferred by Section 14 of the Wakf Act, 1995 (Central Act No. 43 of 1995) the Government of Gujarat hereby reconstitutes and appoints the following persons as the members of the Gujarat State Wakf Board.

Sr. No.	Name	Address
1.	Shri A. I. Saiyed, Retired IPS, Ahmedabad	
2.	Shri Ahmedbhai Patel, Member of Parliament	At. Piraman, Tal. Ankleshwar, Dist. Bharuch
3.	Shri Sabirbhai Kabliwala, Member of Legislative, Assembly, Ahmedabad.	
4.	Shri Sajjad Hira, Rajkot.	4, Diwanpara, Rukun Mension, Rajkot
5.	Shri Sirajbhai Madakia, Junagadh	Tal. Visavadar, Dist. Junagadh
6.	Shri Amadbhai Jat, Kuchchh	Rabbani Manzil, Ghodar Road, 581, Bhuj, Dist. Kuchchh
7.	Shri Badruddin Halani, Vapi	G-2, Blue Bird Apartment, Behind Shreyas Tower, N.H. 8, Vapi
8	Shri Rafiqbhai Lalbhai Kundiwala, Ahmedabad.	3, Memon Society Vibhag-1, Late Shri Lalbhai Kundiwala Marg, Dani Limda, Ahmedabad.

By order and in the name of the Governor of Gujarat,

(Sd/-) Illegible,
Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 24th February, 2011.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/27/CPA/102010/1049452/D.- The State Government has issued a Notification bearing No. GTH/2011/17/CPA/102010/1049452/D, dated 15th February, 2011 in pursuance of the provisions under the Consumer Protection Act, 1986.

Substitute the word "Vadodara" appearing in the above notification by the word "vadodara (Additional)".

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to Government.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 24th February, 2011.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/28/CPA/102010/1049452/D.- The State Government has issued a Notification bearing No. GTH/2011/19/CPA/102010/1049452/D, dated 15th February, 2011 in pursuance of the provisions under the Consumer Protection Act, 1986.

Substitute the word "Surat" appearing in the above notification by the word "Surat (Main)".

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to Government.

IX-A-Ex-19-1

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PART IV-A

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 28th February, 2011.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/29/CPA/102010/1049452/D.- In exercise of the powers conferred by section 10 (2) of the Consumer Protection Act, 1986, the Government of Gujarat hereby accepts the resignation of Mr. N. A. Acharya, at present working as Judicial Member of Consumer Disputes Redressal Commission, Ahmedabad, with immediate effect.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar. 9th March, 2011.

WAKF ACT, 1995.

No. GK/9/Wakf/102011/12/193/E :- In exercise of powers conferred by section 14 of the Wakf Act, 1995 (Central Act No. 43 of 1995) the Government of Gujarat hereby appoints the following persons as the members of the Gujarat State Wakf Board.

Sr. No.	Name	Address
1.	Shri Gulam Hussain Momin.	Badarpur, Tal.Vadnagar, Dist. Mehsana.
2.	Shri Afzalkhan Habibkhan Pathan.	5, Chinar Park, Near Age High School, Memon Hall Road, Juhapura, Ahmedabad 380 055.

By order and in the name of the Governor of Gujarat,

Sd/-(Illegible)
Secretary to Government.

Government Central Press, Gandhinagar.

Extra No. 22 REGISTERED NO. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

WOMEN AND CHILD DEVELOPMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 1st March, 2011.

PROTECTION OF WOMEN FROM DOMESTIC VIOLENCE ACT, 2005.

No GS.-(1)-2011-MHY-102010-1875-A : In exercise of the power conferred by section 2 and 10 of the Protection of women from Domestic Violence Act -2005 (43rd of 2005) the Government of Gujarat hereby recognizes the institutions/organizations specified in the scheduled appended here to as service provider for the purpose of the said Act.

THE SCHEDULE

No.	Name of the institute/organizations
Dist. : Amreli.	
1	Shree Mahila Vikas Mandal (J.K,) Jadavlaxmi vikas gruh, Station road, Manekpara, Amreli.
2	Shree Vidhyotejak Kelavni Mandal House of Paresh kumar Upadhya, Limbdipara, Khambha.
3	Darpan Charitable Institute House of Mohanlal Mavjibhai Potcolony, Jafrabad.
4	Darpan Charitable Institute 10, Giriraj shoping center, Jafrabad Road, Rajula.
5	Shiddhi Vinayak Edu. Trust House of Gordhanbhai Sekhaliya, Yamunakunj, Baharpara, Amreli Road, Liliyamota.
6	Shree Savarkundla Taluka Bhagini Seva Mandal Tapihai senetorim, Opp. Gowsala, Manibhai Chowk, Savarkundla.
7	Dr. Ambedkar Vidhyotejak Mandal House of Devkubhai Dhandhal, Amrapara, Near S.T, Depo , Bagsara.
8	Shree Mahila & Bal Vikas Charitable Trust Marutinagar Suragpara, Vadiya.
9	Matrushree V. A. Joshi Edu & Charitable Trust Station Road, Opp. Bhrahm samaj vadi, House of Premsankarbhai Trivedi Dhari.

No.	Name of the institute/organizations
10	Shree Shiddhi Vinayak Edu. Trust House of Ganshyambhai Rana, Old Post office, Darbargath, Lathi.
11	Dr. Ambedkar Vidyotejak Mandal Nera Jivanpara S.B.S., Near Sarkari pushtkalay, Babra.
Dist. : Jamnagar.	
12	Shree Murlidhar Edu. & Charitable Trust (J.K.) 609, Indraprasth complex, Pancheshvar Tower Road, Jamnagar.
13	Shree Sarvodya Mahila Udhyog Mandal Modi nivas, Opp. Old G.E.B., Okha Port.
14	Shraddha Mahila Arthik Utkarsh Mandal House of Vikrambhai Bela, Sarkari davakhava Road, Jamkalyanpur.
15	Shraddha Mahila Arthik Utkarsh Mandal Luhar sheri, main bazar, Near Dr. Ashar na Davakhana, Kalavad.
16	Jagruti Mahila Mandal Nava para, Post office road, Jamkhambhalia.
17	Sardar Patel Yuvak Mandal Bapa Sitaram's Madhuli, Ranjit para, Bhanvad.
18	Excelance Yuvak Mandal Jalaram Sociaty. Mandavray krupa Sheri, Jodiya.
19	Jilla Yuvak Mandal Khoja khana Area, Station road, Jamjodhpur.
20	Navchetna Gram Vikas Seva Samiti On the Ram jewlers, Hashubhai Luhar's Pole, Main bazar, Lalpur.
21	Shree Jamnagar Jilla Samaj Kalyan Sangha Bapa sitaram building, college choke, Kharva road, block no. G-l, Dhrol.
22	Sardar Patel Yuvak Mandal Khodiyar colony, Opp. Gaytri mandir, Erodram Road, Jamnagar.
Dist. : Katch	
23	Jayambe Sikshan Vikas Sarvjanik Seva Trust 150-A, Sanshkarnagar, Savminarayan, Opp. Gurukul, House of Parmar Haribhai Muljibhai, Bhuj.
24	Navjivan Viklang Seva Shrya Dudhi road, Opp. water Godaun, Bhachau.
25	Rural Devlopment & Resource Center Vijaynagar suminath complex, Dhavalnagar Road, Mandvi.
26	Navjivan Viklang Seva Shrya Shop no 6, M.D.M. complex, Bhuj Nakhtrana highway, Devparyaksh, Nakhtrana.
27	Confidence Charitable Trust Darji faliyu, Opp. Dena bank, Naliya Abdasa.
28	Nehru Lok Svraj Sangh 201, Umiya complex, 2nd Floor, Ayodhyapuri.
29	Confidance Charitable Trust Plot no. 10, Sector-4, Gandhidham, Gandhidham.
Dist. : Surendranagar.	
30	Shree Vardhman Ghruh Udyog Mahila Mandal (J.K) Near Ram Bhojnalay, Opp. IT1, On the Patel General store, Surendranagar.
31	Shree Vardhman Gruh Udyog Mahila Mandal Shradhdha complex, On the Tapshvi Investment, Limbadi.
32	Shree Vardhman Ghru Uyog Mahila Mandal Gokul complex, dukan no. 2, Opp. Rangoli restorant, Post office Road, Dhangadhra.
33	Gnandip Trust House of Babubhai bangadivala, Near Post office, Patdi.

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No.	Name of the institute/organizations
34	Shree Samagra Samaj Khadi Vikas Mandal Trikampara, Opp. Post office, Muli.
35	Samarthan Trust House of Devsankar Achary, Opp. Bhraman Bhojan sala, Halvad.
36	Shree Gram Udhyog Seva Trust Opp. Shak Market juna darbar gagh bal mandir, 2nd floor, Chuda.
37	Jay Bajrag Gram Vikas Trust Main Road, out of Gate, In Santosh sound's dukan, Lakhtar.
38	Jay Bajrang Gram Vikas Trust Vihat chok, Near Gram panchyat, Sayla.
39	Bhagyodya Vidya Vikas Kelavni Trust 13, Ayodhyadham, Behind mamlatdar kaeheri, Chotila.
40	Shreenath Seva Trust Shaktinagar, Gharsala Road, maturatan gar, Vadhvan.
41	Kalrav Seva Trust Opp. Vandana restorant, On the muda graphics, jintan Road, Surendranagar.
Dist. : Junagadh	
42	Shree Mahila & Bal Vikas Charitable Trust (J.K) Radhanagar Society, Jay Chamunda, Opp. Ambavadi parishram makan, Junagadh.
43	Dr. RadhaKrishna Edu.Trust Limbda Chok, Mangrol, Jail Road, Near Parmar saheb Davakhana, Mangrol.
44	Dr. RadhaKrishna Edu.Trust Ambavadi Area, Kesod.
45	Shree Bhagvati Mahila Mandal Near Old bus stand, House of Bavaji, Opp. Water tank, Bhesan.
46	Shree Vinayak Edu. Trust Jalaram Plot, Opp. Railway Station, Maliya (Hatina)
47	GnandipTrust House of J.V. Raval, Divan para, Bus stand Road, Manavadar.
48	Late. Matrushri. V.A. Joshi Edu. & Charitable Trust Krisna park, Near Maheshnagar, Zanzarda Road, Block no. 110, Near Nirman prathmik School, Junagadh.
49	Pavan Mahila Kalyan Shaisknik Sanstha 18, Ambikanagar Society, Junagadh.
50	Gnansarita Edu. Trust Nagarpalika Road, Unda Street, Opp. Rohit pan centre, Vachla pada, Sutrapada.
51	Chamunda Mahila Audhyogik Sahkari Mandali Gokul Complex, 2nd floor, Near J. P. high school, Mendarda
52	Madina Edu. & Charitable Trust Bhalaka road, Opp. Railway fatak, shahigra colony, Veraval.
53	Gitanjali Edu. & Charitable Trust Opp. Gaytri Plot Gaytri Mandir, 1st floor, Opp. Braham samaj vadi, Visavadar.
54	Junagadh Jilla Mahila Mandal House of Shri Manshukh P. Jatakiya, Bhim Bhada, Kunbhani para, Near Petrol, pump, Talala.
55	Matrukrupa Edu. & Charitable Trust Bordichora, House of Rajakbhai, Vanthali.
56	Shree Mahila & Bal Vikas Charitable Trust Shivkrupa, House of Anilbhai, Bhimpara, Near Nagarpalika wel, Una.
57	Navchetna Gram Vikash Samiti 2nd floor, Dr. House, Jangleshvar road, Kodinar.
58	Navjivan Edu, & Charitable Trust (J.K) Malinivas, kamla bag, Opp. Vashudhara complex, Porbandar.
59	Navjivan Mahila Utkarsh Society Gopinath Plot, Main road, Opp. S.B.S., Ranavav.

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No.	Name of the institute/organizations
60	Matrukrupa Khadi Gram Udyog Sangh Baharpara, Behind Sindhi Samaj Vandi, Kutiyana.
61	Navjivan Edu. & Charitable Trust Chhaya chowki Area, Chhaya road, Porbandar.
Dist. : Rajkot.	
62	Jay Gurudev Edu, & Charitable Trust (J.K.) Karmyogl Educational Zone, New Mayani nagar road, Mavdi Plot, Rajkot.
63	Mahila Pragati Mandal Para Bagar, Behind Dena Benk, Morbi.
64	Shree Mahila Kala Niketan Trust Meman Street, Main road, Tankara gam bazar line, Tankara.
65	Anmol Edu, & Charitable Trust 5, Shreenathji Society, NGO office, Near vishveshvar market, Mavdi main road, Rajkot.
66	Matrushree V.A. Joshi Edu. & Charitable Trust Guest house road, Ramdevpeer's Temple dukan, Kotda Sangani.
67	Anmol Edu. & Charitable Trust 3/8, Bagvat para, Gondal.
68	Jaygurudev Edu. & Charitable Trust Ramnivas, Thordi road, Opp. Khimani high school, Lodhika.
69	Lagumati Utkarsh Trust Chitaliya road, Paniyavali Street, Jashdan.
70	S. P. Mahila Sahkari Mandali 3, Kunbhar para, Vankaner.
71	Vikas Seva Sangh House of Laxmikant's Modi, Near Dr. Joshi's Banglow, Junagath road, Jetpur.
72	Sahyog Paddhari Mahila shivan class, Near Paddhari Gram panchayat kacheri, Paddhari.
73	Madhvi Jankalyan Trust Ganchi Street, Maliya-Miyana.
74	Sahyog Gram Mahila Navnirman Trust Opp. Nava Bus stand, Near Shakti hotel, Dhoraji.
75	Vikash Seva Sangh Solanbi Street, House of Sujaybhai, Upleta.
76	Jay Gurudev Edu. & Charitable Trust Mahakali krupa, Gondal road, Jamkandorna.
77	Jay Gurudev Edu, & Charitable Trust Nava Thorada khijdavalo road, Near Abdulbhai kerosinvala, Rajkot.
78	H.D. Patel Edu. & Charitable Trust Bajrang vadi no-l, Pooja park, Jamnagar road, Rajkot.
Dist. : Bhavnagar	
79	Bhavnagar Mahila Mandal (J.K.) Opp. Jilla Panchayat, Moti bag chowk, Bhavnagar.
80	Shree Bhagini Mitra Mandal Palitana New Sarvoday Society, Palitana.
81	Darpan Charitable Institute Bhumi complex, Near J.P. high school, Mauhva.
82	Shree Parshuram Balvant Ganpule Mahila Mandal Near Nagar palika office, Shihor.
83	Shubhag Mahila Utkarsh Trust Shree Pratabhbhai Parmar, Radhakrushna Apartment, Main bazar, Valbhipur.
84	Shree Bhavnagar Mahila Sangh Vadava woshing Ghat, Bhavnagar.

INDEX

No.	Name of the institute/organizations
85	Shubhag Mahila Utkarsh Trust Plot no. 1945, Near Sardar nagar circle, Govt Shoping center, Bhavnagar.
87	Indian Council of Social Welfare Vitthaleshvar mandir Ranika, Bhavnagar.
87	Indian Council of Social Welfare On the Pandya Medical Agency, Near Girls high school, Vadibhai Mehta marg, Talaja.
88	Indian Council of Social Welfare Hadkeshwar mandir, Near sarkari Hospital, Ghogha.
89	Bhavnagar Mahila Mandal Khadi karyalay office, Opp. Library, In the utaranar chowk, Umrala.
90	Shree Uday Trust Mahila mandal, haveli chowk, Near Bridge, Botad.
91	Shree Gram Nirman Trust Navagam road, Vav Darvajav Gariyadhar.
92	Bhavnagar Mahila Mandal Mohannagar Soc, Near Bus stand, Near Sharda School, Gadhada.
93	Bhavnagar Mahila Mandal Bhanuben Parekh Smarak Trust Shanti niketan Society., College road, Vidhyanagar.
Dist : Anand	
94	Jagrut Mahila Sangthan (J.K.) Near Grid, Lambhvel Road, Anand.
95	Jagrut Mahila Sanghathan Parshvanath complex, Opp. court, Ground floor, Borsad.
96	Jagrut Mahila Sanghathan 363, Sardar Patel market, 2nd floor, Near Ranchhodji Temple, Petlad.
97	Hirabaa Mahila Mandal Near Bhaikaka statue, Mota bazar, Vallabhh Vidhyanagar.
98	Smt. Bhikhuben Chandulal Jaludwala Khambhat Bhagini Samaj, Suraj Mahel, Kadiya pole, Khambhat.
99	Kheda Jilla Bal Kalyan Sangh Bhaikaka Bhavan, Opp. Dashna Maholla, Sojitra.
100	Jaybharti Foundation Mahisagar Credit Society, On the Main Chokdi (Umeta road), Anklav.
101	Village Works Welfare Charitable Trust House of Dakshaben Prakashbhai Barot, Near Yogesh Telecom center, M. J. Chali, Opp. Baluram, Near Dr. Chintan Vyas Hospital, Old Road, Anand.
Dist. : Kheda-Nadiad	
102	Mahila Samaj (J.K.) Akhil Hind Mahila Parishad, Khari pol, Nadiad.
103	Helping Hand Kutir & Gramodhyog Charitable Trust 16-B, Ambika complex, Ground floor, Near S.T. Stand, Kheda.
104	Village Works Welfare Charitable Trust Gordhanbhai Sanbhaubhai Patel shoping centre, Opp. Samuhik Aarogya Kendra, Near Taluka panchayat, Matar.
105	Chamunda Khadi Gramodhog Charitable Trust Dukan no 6, Nagarpalika complex, Near Bus stand, Opp. Sweety Xerox, Mahemdabad.
106	Bhagini Niketan Veerpur Mahavir complex, Behind S.T. bus stand, Virpur.
107	Arunodaya Jan Seva Trust On the Shivam complex, state bank meda, Balasinor.

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No.	Name of the institute/organizations
108	Navsarjan Rural Development Trust House of Rajeshbhai Rambhai Patel, Opp. Union Bank, Opp. Jay bhole Electric, Thasara.
109	New India Khadi Gramodhyog Charitable Trust 13, Kaveri Plazza , Opp. Sardar Bhavan, Mill road, Nadiyad.
110	New India Khadi Gramodhyog Charitable Trust Near Chhatiyavad Limdi Patel vadi, Nadiyad.
111	Vanraj Edu. & Charitable Trust Opp. Narayandev Temple, House of Chandrakant Joshi, Rashik Desai's Khadki, Room no-3, Kapadvanj.
112	Gujrat Navjivan Kelavni Mandal C-304, 3rd Floor, Shri Ram complex, Kathalal.
Dist. : Vadodara.	
113	Vividh Kutir Udhyog Mahila Sahkari Mandali Ltd. B-5, Ambavadi Soc, Near Telephone Exchange, Padara.
114	Pressman VividhLaxi Mahila Sanghathan House of Ashokbhai Ramanbhai Tailar, Azad chowk, Opp. Post office, Nasvadi
115	Shree Dharmendra Kelvani Mandal 22, Madhav park Society, Nava Bazar, Karjan.
116	Shree Siddhi Sarvajanik Trust House of Lilaben Rathava, Highway road, Near Railway stand, PaviJetpiir.
117	Vrunda Hastkala Kendra 8, Vraj complex, Maniyar vaghò, Opp. Dr. Maheshbhai Hospital, Dabhoi.
118	Gujarat Kelvani Mandal House of Shah Ritabahen Pankajbhai, Gandhi faliyu, Nr. Towar, Vagodiya.
119	Vrunda Hastkala Kendra C-108, Jay Vaikunth gam Society Vadodara.
120	Shri Shiddi Sarvajanik Trust 102, Ambika Chambers, Bahuchraji char rasta, Kareli Bag, Vadodara.
Dist. : Dahod	
121	Sanshkar Education Trust House of Pratapbhai Sakrabhai Parmar, Jay Yogeshwar nivas, Dahod, road, Garbada.
122	Pressman VividhLaxi Vikas Sanghathan House no. 144, House of Prajapati Chimanbhai Mansingbhai, Near Nagrik Bank, Jalod road, Limkheda
123	Arudhanti Mahila Vikas Parishad Opp. Kabir Ashram, Dhanpur
Dist. : Dang-Ahva	
124	Adivashi Mahila Utkarsh Samiti (J. K.) House of Mahila Printing press, Dang Seva mandal Compund, Ahwa.
125	Adivashi Mahila IJtkarsh Samiti Dang Seva mandal Compund, Ahwa.
Dist. : Narmada	
126	Satyam Edu. Trust Patel Chali, Opp. Tulsi Hotel, Ankleshwar road, Dediyapada.
127	Pragati Mahila Mandal Kunbhar vas, Tilakvada.
128	Akhilhind Mahila Parisad Near Bhathijina Temple, Selaba road, Sagbara.
129	Shri Pragati Mahila Mandal Near Lal Tower, Darbar road, Nandod.

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No.	Name of the institute/organizations
Dist. : Panchmahal	
130	Bhagini Mandal Godhra (J. K.) Akhil Hind Mahila Parisad, Godhra Shakha, Muni. road, Kalal Darvaja, Godhra.
131	Sarthi Santrampur Kshetrpal complex, 2nd floor, Near Old kanya School, Tower road, Santrampur.
132	Saraswati Education Trust Near Radhesyam complex, Opp. Bus stand, Kalol.
133	Halol Stri Samaj Mandir faliya, Halol.
134	Shri Siddhi Sarvjanik Trust Sarvody Society, Lunavada road, Nakoda seles Street, Near F.C.I. Godaun, Godhra.
Dist. : Surat	
135	Shramjivi Mahila Kalyan Trust (J.K.) Shramjivi Sevalay, Opp. Railway Stand, Near Alankar Cinema, Surat.
136	Sarvajanik Mahila Mandal Opp. Old Prakash tokise, Opp. Shakbhaji Market, Bardoli.
137	Harihar Thakor Smarak Trust 102, Gita complex, 1st floor, Near Jala party plot, Amroli
138	Shree Manav Kalyan Trust Zapa faliyu, Opp. Surat District Bank, Olpad.
139	Gaytri Seva Sangh F-20, Swami Narayan Apartment, Opp. Jalaram Mandir, Mini Virpur, Palanpur jakat naka, Choryasi.
140	Malpur Taluka Saraswati Seva Sangh, Zanda Chowk, Main road, Opp. Pandor Electronic, Mangrol
141	Jaybharti Lok Vigyan Kendra, Kailash complex, 1st floor, Under the Pecific courtal, National highway, no. 8, Kamrej.
142	Navnirman Seva Trust, Vyara Shivajali Sankul complex, Miyapur char rasta, Mahuva.
143	Kamal Smruti Charitable & Edit. Trust Bhavna Nursing home, Plot no. 287/288, Sarvey no. 49, Subhash nagar, Near Gujarati School, Limbayat, Sarat.
Dist. : Tapi	
144	Institute of Social Welfare Action (J.K) House of Shaileshbhai Desai, Opp. Sai baba Temple, Near Lek view, Apartment, Snehkunj colony, Old Bus stand, Vyara.
145	Guj, Association for Rural & Urban Dev. 15, Valabhbhnagar, Narmada house, Nijar.
146	Shree Seva Utejak Trust House of Jitendra Mehta, Old gam, Vaniya faliyu, Songadh.
147	Adivasi Mahila Utkarsh Phareshwar Society, Opp. Sumul sit Kendra, Uchchhal.
148	Shree Gurukrupa Edu. & Welfare Trust Sai Krupa, Fadke nivas, Malivad, Vyara.
149	Shri Dakshin Gujarat Mahila Gruh & Gramodhyog Vikas Udhyogvadi, compound, Valod.
Dist. : Navsari.	
150	Jyoti Samaj Navsari (J.K.) Premji complex, 1st floor, Santidevi road, Navsari.
151	Jyoti Samaj Gajdar Library, 1st floor, Kansarvad, Gandevi.

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No.	Name of the institute/organizations
152	Navgurjari Mahila Gruh & Gramodhyog Vikas Mandal Sureshbhai Maganbhai Patel, 6-49 , Gujarat Housing Society., Udhyog nagar, Vijalpor, Jalalpor.
153	Gayatri Mahila Mandal Vaniyavad, Nanak Center Street, Chikhli.
154	Gayatri Mahila Mandal Near Tower, Vansda.
Dist. : Valsad	
155	Astitva Mahila Utkarsh Sanstha Tarang Apartment,Opp. LIC office, Halar road, Valsad.
156	Astitva Mahila Utkarsh Sanstha Opp. Shinde Petrol pump, Opp. Central Bank, Bus stand road, Dharampur.
157	Eshil Navsarjan Rural Development Foundation Ratan Apartment, Opp. Bank of Baroda, Killa - Pardi.
Dist. : Bharuch	
158	Shri Madhvi Gramodhyog Mandal Madni complex, Near Kamal Petrol pump, Jatnbusar road, Amod.
159	Shree Siddhi Sarvajanik Trust 20, Sai complex, Near Reliance petrol pump, Hansot, Ankleswar road, Hansot.
160	Shree Datt Mahila Mandal Subhashnagar, Jambusar.
161	Jay Mataji Edu. & Trust On the Post office, Jaghdiya.
Dist. : Ahmedabad (City)	
162	Manav Kalyan Trust (J.K.) 10, Swastik Super market, 4th floor, Opp. popular house, Ashram road.
163	Akhil Bharatiy Samajika swathy sangh jilla panchayat compound, Bhadra.
164	Amadavad womens action group (awaj) awajghar, Opp. General hopsital, Bapunagar.
165	Akhandjyot Charitable B-8, Ganesh Apartament, Sutar karakhana road, Naroda.
166	Akhandjyot Charitable Trust Ahmedabad Fatepura Gam, behind Post office, Paldi.
167	Jyoti Sang Bhimjipura, Navavadaj.
168	Shree Manavseva Vikas Mandal 2/34, Satyamnagar, Nagarvir, Hanuman Road, Rakhiyal.
169	Gujarat Stri Kelavani Mandal Nr. Post office, Ellishbridge.
170	Vatsalya Trust 57, Near Gansyam complex, Near Over bridge, Chandlodiya.
171	Vikas Gruh Vikas Gruh, Dhumketu marg, Paldi.
172	Gujarat Masturat Seva Trust Bukhara hostel Khamasa, Dhalgarvad.
173	Ahmedabad Muslim Women Associations Rizvan Society, Juhapura.
174	Gnandip Edu. Trust 21, Ganga Chamber, Near G.D. School, Naroda road, Saijpur Bogha.
175	Manav Kalyan Trust 12, A-Mamta shoping center, Near O.N.G.C. office, Opp. Alkh Ashram, Jantanagar, Chandkheda road, Sabarmati.

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No.	Name of the institute/organizations
176	Shree Bhagvati Mahila Utkarsh Mandal 71/558, Gujarat housing board, Kalapinagar, Asharva.
177	Pratik Vikas Mandal 161, Block no, 11, Saheri Garib Avash Yojna, Near Auda Flat, Malhotra factory, Odhav.
178	Pratik Vikas Mandal 1987/4, Indira nagar, Opp. Chamunda Matana Temple, Near Ramanbhai's Dukan, Ramol.
179	Ravi Khadi Gramodhog Sangh L-10, Priya complex, Under the S.B.L ATM , Talavdi circle, Hansol
Dist. : Ahmedabad (Gramya)	
180	Vishva Bharti Sanstha (J.K.) House of Bachubhai Patel, Opp. Sadavrat Trust, Mandirvali Street, Kharakuva, Sarkhej.
181	Muslim Women Association Trust Amva Kureshi Maholla, On the Modhvadna naka, Sarkhej.
182	Vishva Bharti Sanstha Under the Arihant classes, Darjino tekro, Opp. Primary School, Bavla.
183	Shree Vivekanand Samutthan Manav Seva & Kelvani Trust Paravas, Nichlo vas, House of Manubhai Patel, Mandal.
184	Bhavani Mahila Seva Sangh Opp. Talpada Koli samaj vadi, Near Rokadiya Hanuman Temple, Barvala.
185	Garud Sanshtha Nilkanth complex, kalikund, Kheda Bavla road, Dholka.
186	Bhagyoday Seva Sangh Khadi complex, Ranpur.
187	Sidhdhivinayak Khadi Gramodhyog Kelvani Sanstha House of Bhanuprashad Barot, Barotvas, Detroj.
188	Shree Jagruti Seva Trust Near Munsar Gate, House of Manubhai, Near Police chowki, Viramgam.
189	Vishva Bharti Sanstha House of Sanjaybhai, Dholka road, Fatevadi, Daskroi.
Dist. : Mehsana	
190	Mahila Mandal Opp. T. J. High school, Mehsana.
191	Bhagini Sahayak Gruh Udhyog Sahkari Mandli Ltd. Maya Bazar, On the Student type class meda, Visnagar.
192	Shree Sarjan Trust F-77, Dayanand complex, Satyam get, Becharaji.
193	Bhagini Sahayak Gruh Udhyog Sahkari Mandli Ltd, Khari Kui, Near Yash Laboratry, Kheralu.
194	Bhagini Sahayak Gruh Udhyog Sahkari Mandli Ltd. Veravasna Navratri Chowk, House of Vishnubhai Kalidas Thakkar, Vijapur.
195	Shree Chetna Mahila Vikas Kelvani Mandal In House of Library, Court kuva, Near Post office, Unja.
196	Shree Chetna Mahila Vikas Kelavni Mandal House of Sathvara Jagdishchandra Sakarchandra, Kukarvagadano madha, Dhash kol Gate, Vadnagar.
197	Bhagini Sahayak Gruh Udhog Sahkari Mandali In the Balmandir Khancha, Near Prathmik school, Satlasana.
Dist. : Sabarkantha	
198	Parakh Trust (J.K.) Ambavadi Bar Banglow, Himatnagar.
199	Malpur Taluka Sarashwati Seva Sangh Modasa road, Malpur.

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200	Achala Trust On the House of Dilipbhai Jain, Azad Chowk Main bazaar, Near Temple, Vadali.
201	Achala Trust House of Babubhai Darji, 1st floor, Opp. Parekh Khadki, Lal Darvaja, Prantij.
202	Parakh Trust Mistry Market, Swastik Near Book Depo, House of Ramanlal Mistry, Talod.
203	Modasa Mahila Gruh Udh. Sahkari Mandali Ltd, Kunhhar vada, On the Dhal, Near Abhilasha park, Modasa.
204	Achala Trust 6- Sharda kunj Society, Motipura, Himatnagar.
205	Gram Vikas Seva Trust Idar Taluka Kharid Vechan Sangh, 1st floor, S. T. Road, Idar.
206	Manav Kalyan Trust Bhakti nagar, Behind Police line, Opp. Tapovan Bhraman samaj vadi, Khedbrama.
207	Rambhakt Sanskar Mandal Near Bus stand, Opp. LIC, Modasa highway, Dhansura.
208	Parivartan Trust C, Jamnadas Super Market, On the Meda, Bus stand road, Meghraj.
209	Parakh Trust On the Taluka Panchayat meda, Bus stand road, Bhiloda.
210	Shivshakti Edu. Trust House of Bhavna Vinodbhai Doshi, Near CDPO Office, Mahavirnagar, Vijaynagar.
Dist. : Banaskantha	
211	Sadbhav Mahila & Bal Vikas Trust (J.K.) Opp. Jilla Panchayat, Markentaint Bank Street, 2nd floor, Rachna Building, Palanpur.
212	Shree Banaskantha Mahila Jagruti Mandal Shihori Bus stand road, Near highschool, Shihori (Kankrej).
213	Sahyog Pragati Mandal House of Savrambbai Dave, Jalaram park Society, Near water tank, Deodar.
214	Swarai Sunyanand Seva Trust Ambika Corpo. 1st floor, Ganj road, Palanpur.
215	Navchetna Mahila & Bal Vikas Trust On the Chaudhary Xerox, Near Chabutra, Amirgadh.
216	Shree Banas Vikas Jagruti Mandal Opp. Mamlatdar Kachery, Chateshwarybhuvan, 2nd floor, Danta.
217	Nutan Grain Vikas Seva Trust House of Jain Babulal Mangilal, Neminath Society, Behind Civil hospital, Opp. court, Disa.
218	Navsarjan Vikas Mandal Chamunda complex, Near Police Station Dantivada.
219	Kuwarad Yuva Vikas Trust Shreyash Society, House of Hashmukh Thakkar, Bhabhar.
220	Saharsh Mahila Pragati Mandal Navi Bazar, House of Abdulbhai, Vav.
221	Taruna Edu. & Welfare Trust Near the Post office, Near Taluka Panchayat, Tharad.
Dist. : Patan	
222	Bhagini Samaj Patau (J.K.) Out of Kansada Gate, Kalka Road, Patan.
223	Yoganjali Kelvaui Mandal Dethdi road, Kholvada, Siddhpur.
224	Shree Kuwarad Yuva Vikas Trust House of Thakkar Bharatbhai, Near Dada vadi, Sami.

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No.	Name of the institute/organizations
225	Bhagini Samaj Front of Madhapara Post office, Chanasma.
226	Ahmedabad Womens Action Group (Awaz) Highway char rasta, Hindu Arogay Bhavan, Radhanpur.
227	Sarhadi Vistar Vikas Trust Mahadev Vas, Opp. high school, House of Vagela Harising Bapu, Varahi.
228	Shree Maharshi Arvind Pachhat Seva Mandal Near Gaytri Mandir, Harij.
229	Vadhiyar Niketan F-146, Sardar complex, Siddhpur char Rasta, Patan.
Dist. : Gandhinagar	
230	New India Khadi Gramodhog Charitable Trust (J.K.) Plot no. 1428/1, Sector - 3-C, Opp. Jay Ambe chowk, Gandhinagar.
231	Vanraj Edu. & Charitable Trust Block no. 101/3, chh type, Near Panchdev mandir, Sector-22, Gandhinagar.
232	Ahmedabad Muslim Women Association Trust Near Ganchi yada Mashjid, Tower road, Kalol.
233	Shree Saikrupa Mahila Kalyan Trust Janta Super Market, Near Old Bus stand, Mahavir complex, Mansa.
234	Pragati Mahila Parivar Sanstha Block no. 31/3 Chh-type, Sector-23, Gandhinagar.
235	Annapurna Khadi Gramodhog Sangh Plot no. 1111/I; Sector-4-A, Gandhinagar.
236	Parakh Trust 8, Ambasanti complex, Opp. kumar school, Mamlatdar kacheri road, Dehgam.

By order and in the name of the Governor of Gujarat,

DARPANA DHIMMAR,
Deputy Secretary to Government.

મહિલા અને બાળ વિકાસ વિભાગ,

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૧લી માર્ચ, ૨૦૧૧

પારિવારીક હિંસા સામે સ્ત્રીઓના રક્ષણ બાબતનો અધિનિયમ, ૨૦૦૫.

નં : ગુ.રા.-(૧)-૨૦૧૧-મહય-૧૦૨૦૧૦-૧૮૭૫-અ .- પારિવારીક હિંસા સામે સ્ત્રીઓના રક્ષણ બાબતના અધિનિયમ, ૨૦૦૫ (૨૦૦૫નો ૪૩મો) કલમ-૨ અને ૧૦ની જોગવાઇ હેઠળ રાજ્ય સરકાર આ સાથેના પત્રક મુજબ સેવા પુરી પાડનાર સંસ્થાઓ તરીકે સંદર્ભિત કાયદાના હેતુ માટે જાહેર કરે છે.

પરિશિષ્ટ

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૧	શ્રી મહિલા વિકાસ મંડળ (જિ. કે.) જડાવલક્ષ્મી વિકાસ ગૃહ, સ્ટેશન રોડ, માણેકપરા, અમરેલી.
૨	શ્રી વિધોતેજક કેળવણી મંડળ, પરેશકુમાર કાન્તીલાલ ઉપાધ્યાયના મકાનમાં, લીમડી પરા, મુ. ખાભા.

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અનુ.	કેન્દ્રનું નામ સરનામું
૩.	દર્પણ ચેરીટેબલ ઈન્સ્ટીટ્યુટ, મોહનલાલ માવજીભાઈના મકાનમાં, મોટા ઉચાણીયા વિસ્તાર, પોટ કોલોની, જાફરાબાદ.
૪.	દર્પણ ચેરીટેબલ ઈન્સ્ટીટ્યુટ, ગીરીરાજ શોપીંગ સેન્ટર, દુકાન નં. ૧૦, જાફરાબાદ રોડ, મુ. રાજુલા
૫.	સિધ્ધિ વિનાયક એજ્યુકેશન ટ્રસ્ટ, ગોરધનભાઈ પી શેખલીયાના મકાનમાં, યમુનાકુજ યમુના પાનની ઉપર, બહારપરા રોડ, લીલીયા મોટા
૬.	શ્રી સાવરકુંડલા તાલુકા ભગીની સેવા મંડળ, શ્રી તાપીબાઈ સેનેટોરીયમ ગૌશાળા સામે, મણીભાઈ ચોક, સાવરકુંડલા
૭.	ડૉ. આંબેડકર વિધોતેજક મંડળ બગસરા દેવકુભાઈ ધાધાલના મકાનમાં, અમરપરા, એસ ટી ડેપો પાસે, બગસરા
૮.	શ્રી મહિલા અને બાળ વિકાસ ચેરીટેબલ ટ્રસ્ટ મારુતી નગર, સુરગપરા, મુ.તા.વડીયા
૯.	માતૃશ્રી વિ.એ.જોષી એજ્યુ એન્ડ ચેરીટેબલ ટ્રસ્ટ સ્ટેશન પ્લોટ, બ્રહ્મસમાજની વાડીની સામે, પ્રેમશંકરભાઈ ત્રિવેદીના મકાનમાં, ધારી
૧૦.	શ્રી સિધ્ધિ વિનાયક એજ્યુ ટ્રસ્ટ ઘનશ્યામભાઈ રાણાના મકાનમાં, જુની પોસ્ટ ઓફિસના મેડા ઉપર દરબારગઢ, મુ.તા.લાઠી
૧૧.	ડૉ. આંબેડકર વિધોતેજક મંડળ જીવનપરા, એસ.બી.એસની બાજુમાં, સરકારી પુસ્તકાલયની બાજુમાં, મું. બાબરો
	જિલ્લો-જામનગર
૧૨.	શ્રી મુરલીધર એજ્યુકેશન એન્ડ ચેરીટેબલ ટ્રસ્ટ (જિ. કે.) ૬૦૯, ઈન્દ્રપ્રસ્થ કોમ્પલેકસ પંચેશ્વર ટાવર રોડ, જામનગર
૧૩.	શ્રી સર્વોદય મહિલા ઉદ્યોગ મંડળ, મોદી નિવાસ, જુની જી.ઈ.બી. ઓફિસ સામે, ઓખા પોર્ટ
૧૪.	શ્રધ્ધા મહિલા આર્થિક ઉત્કર્ષ મંડળ, વિક્રમભાઈ બેલાના મકાનમાં, સરકારી દવાખાના રોડ, જામકલ્યાણપુર
૧૫.	શ્રધ્ધા મહિલા આર્થિક ઉત્કર્ષ મંડળ, લુહાર શેરી, ડૉ. આસરાના દવાખાના વાળી શેરી, ખોજા ખાના પાસે, મીરા ટેઈલર્સની બાજુમાં, મેઈન બજાર, કાલાવાડ
૧૬.	જાગૃતિ મહિલા મંડળ, નવા પરા, પોસ્ટ ઓફિસ રોડ, જામખંભાળીયા
૧૭.	સરદાર પટેલ યુવક મંડળ, બાપા સીતારામની મઢુલી, રણજીત પરા, ભાણવડ
૧૮.	એકસીલન્સ યુવક મંડળ, જલારામ સોસાયટી, માંડવ રાયકૂપાવાળી શેરી, જોડિયા
૧૯.	જિલ્લા યુવક મંડળ, ખોજાખાના વિસ્તાર, રેલ્વે સ્ટેશન રોડ, જામ જોધપુર
૨૦.	નવચેતના ગ્રામ સેવા સમિતિ, રામ જ્વેલર્સ ઉપર, હસુભાઈ લુહારની ગલીમાં, મેઈન બજાર, લાલપુર
૨૧.	શ્રી જિલ્લા સમાજ કલ્યાણ સંઘ, બાપા સીતારામ બીલ્ડીંગ કોલેજ ચોક, ખારવા રોડ, બ્લોક નં. જી-૧, ધ્રોલ
૨૨.	સરદાર પટેલ યુવક મંડળ, ખોડિયાર કોલોની, ગાયત્રી મંદિર સામે, એરોડ્રામ રોડ, જામનગર
	જિલ્લો-કચ્છ
૨૩.	જયઅંબે શિક્ષણ વિકાસ સાર્વજનિક સેવા ટ્રસ્ટ, ૧૫૦-એ, સંસ્કારનગર સ્વામીનારાયણ ગુરુકુળની સામે, પરમાર હરીભાઈ મુળજીભાઈના મકાનમાં, ભુજ

અનુ.	કેન્દ્રનું નામ સરનામું
૨૪.	નવજીવન વિકલાંગ સેવાશ્રય, દુધાઈ રોડ, પાણીના ગોડાઉન સામે, ભચાઉ, ભૂજ
૨૫.	રુરલ ડેવલપમેન્ટ એન્ડ રિસોર્સ સેન્ટર, વિજયનગર સુમિતનાથ કોમ્પલેક્સ, ધવલનગર રોડ, માંડવી-૩૭૦૪૬૫
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૮૩.	સુભગ મહિલા ઉત્કર્ષ ટ્રસ્ટ, શ્રીપતાપભાઈ પરમાર, રાધાકૃષ્ણ એપાર્ટમેન્ટ, મેઈન બજાર, વલ્લભીપુર
૮૪.	શ્રી ભાવનગર મહિલા સંઘ, વડવા વોશીંગ ઘાટ, ભાવનગર

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૮૬.	ઈન્ડીયન કાઉન્સીલ ઓફ સ્પેશ્યલ વેલ્ફેર, વિઠલેશ્વર મંદિર, રાણીકા ભાવનગર
૮૭.	ઈન્ડીયન કાઉન્સીલ ઓફ સ્પેશ્યલ વેલ્ફેર, પંડાયા મેડીકલ એજન્સી ઉપર, ગર્લ્સ હાઈસ્કુલ પાસે, વાડીભાઈ મહેતા માર્ગ, તળાજા
૮૮.	ઈન્ડીયન કાઉન્સીલ ઓફ સ્પેશ્યલ વેલ્ફેર, હાડકેશ્વર મંદિર, સરકારી દવાખાના સામે, ઘોઘા
૮૯.	ભાવનગર મહિલા મંડળ, ખાદી કાર્યાલય ઓફિસ, લાયબ્રેરી સામે, ઉતારાના ચોકમાં, તા. ઉમરાળા
૯૦.	શ્રી ઉદય ટ્રસ્ટ, મહિલા મંડળ, હવેલી ચોક, પુલ પાસે, મુ. તા. બોટાદ
૯૧.	શ્રી ગ્રામ નિર્માણ ટ્રસ્ટ, નવા ગામ રોડ, વાવ દરવાજા, ગારીયાધાર
૯૨.	ભાવનગર મહિલા મંડળ, મોહનનગર સોસાયટી, બસસ્ટેન્ડની બાજુમાં, શારદા સ્કુલની બાજુમાં, મુ. તા. ગઢડા
૯૩.	ભાવનગર મહિલા મંડળ, ભાનુબેન પારેખ સ્મારક ટ્રસ્ટ, શાંતિનિકેતન સોસાયટી, કોલેજ રોડ, વિદ્યાનગર
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૯૫.	જાગૃત મહિલા સંગઠન, પાર્શ્વનાથ કોમ્પલેક્ષ, કોર્ટ સામે, ભોંયરામાં, મુ. તા. બોરસદ
૯૬.	જાગૃત મહિલા સંગઠન, ૩૬૩, સરદાર પટેલ માર્કેટ, બીજો માળ, રણછોડજી મંદિર પાસે, મુ. તા. પેટલાદ
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૯૮.	શ્રીમતી ભીખુબેન ચંદુલાલ જલુદવાળા ખંભાત ભગીની સમાજ, સુરજ મહેલ, કડીયાપોળ, મુ.તા. ખંભાત
૯૯.	ખેડા જિલ્લા બાળ કલ્યાણ સંઘ, ભાઈકાકા ભવન, દાસના મહોલ્લાની સામે, મુ.પો.તા. સોજીત્રા
૧૦૦.	જય ભારતી ફાઉન્ડેશન, મહિસાગર ક્રેડિટ સોસાયટી, મેઈન ચોકડી ઉપર (ઉમેટાવાળો રોડ) મુ. પો. આંકલાવ
૧૦૧.	વિલેજ વર્કસ વેલ્ફેર ચેરીટી ટ્રસ્ટ, દક્ષાબેન પ્રકાશભાઈ બારોટના મકાનમાં, યોગેશ ટેલીકોમ સેન્ટર પાસે, એમ. જે. ની ચાલી, બાલુરામ સામે, ડૉ. ચિંતન વ્યાસના દવાખાના પાસે, જુના રસ્તા, આણંદ
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૧૦૨.	મહિલા સમાજ (જિ.કે.), અખિલ હિન્દ મહિલા પરિષદ, ખારી પોળ, નડીયાદ
૧૦૩.	હેલ્પીંગ હેન્ડ કુટીર એન્ડ ગ્રામોદ્યોગ ચેરીટેબલ ટ્રસ્ટ, ૧૬-બી, અંબિકા કોમ્પલેક્ષ, ગ્રાઉન્ડ ફ્લોર, એસ. ટી. સ્ટેન્ડ પાસે, ખેડા,
૧૦૪.	વિલેજ વર્કસ વેલ્ફેર ચેરીટેબલ ટ્રસ્ટ, ગોરધનભાઈ શંભુભાઈ પટેલ શોપીંગ સેન્ટર, સામુહિક આરોગ્ય કેન્દ્ર સામે, તાલુકા પંચાયતની બાજુમાં, માતર

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૧૧૭.	વૃંદા હસ્તકલા કેન્દ્ર, ૮, વ્રજ કોમ્પલેકસ, મનીયાર વાઘો, ડૉ. મહેશભાઈના દવાખાના સામે, ડભોઈ
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૧૩૪.	શ્રી સિધ્ધિ સાર્વજનિક ટ્રસ્ટ, સર્વોદય સોસાયટી, લુણાવાડા રોડ, નાકોડા સેલ્સની ગલીમાં, એફ.સી.આઈ. ગોડાઉન પાસે, ગોધરા, પંચમહાલ
	જિલ્લો : સુરત
૧૩૫.	શ્રમજીવી મહિલા કલ્યાણ ટ્રસ્ટ (જિ.કે.), શ્રમજીવી સેવાલય, રેલ્વે સ્ટેશન સામે, અલંકાર ટોકીઝની બાજુમાં, સુરત
૧૩૬.	સાર્વજનિક મહિલા મંડળ, જુની પ્રકાશ ટોકીઝ સામે, શાકભાજી માર્કેટ સામે, બારડોલી
૧૩૭.	હરિહર ઠાકોર સ્મારક ટ્રસ્ટ, ૧૦૨, ગીતા કોમ્પલેકસ, પહેલે માળે, જલા પાર્ટી પ્લોટની બાજુમાં, રઘુવીર ચોકડી પાસે, અમરોલી
૧૩૮.	શ્રી માનવ કલ્યાણ ટ્રસ્ટ, ઝાંપા ફળીયુ, સુરત ડીસ્ટ્રીક બેંકની સામે, ઓલપાડ
૧૩૯.	ગાયત્રી સેવા સંઘ, એફ-૨૦, સ્વામીનારાયણ એપાર્ટમેન્ટ, જલારામ મંદિરની સામે, મીની વીરપુર પાલનપુર જકાતનાકા, ચોર્યાસી
૧૪૦.	માલપુર તાલુકા સરસ્વતી સેવા સંઘ, ઝંડા ચોક, મેઈન રોડ, પાંડોર ઈલેક્ટ્રોનિકની સામે, માંગરોળ
૧૪૧.	જયભારતી લોક વિજ્ઞાન કેન્દ્ર, કૈલાસ કોમ્પલેક્ષ, ૧લો માળ, પેસેફિક કોર્ટલની નીચે, નેશનલ હાઈવે નં. ૮, કામરેજ
૧૪૨.	નવનિર્માણ સેવા ટ્રસ્ટ, વ્યારા શીવાંજલિ સંકુલ કોમ્પલેકસ, મીયાપુર ચાર રસ્તા, મહુવા, સુરત
૧૪૩.	કમલ સ્મૃતિ ચેરીટેબલ એન્ડ એજ્યુકેશન ટ્રસ્ટ, ભાવના નર્સિંગ હોમ, પ્લોટ નં. ૨૮૭/૨૮૮, સર્વે નં. ૪૯, સુભાષનગર, ગુજરાતી સ્કુલ પાસે, લીંબાયત

અનુ.	કેન્દ્રનું નામ સરનામું
	જિલ્લો : તાપી
૧૪૪.	ઈન્સ્ટીટ્યુટ ઓફ સ્પેશ્યલ વેલ્ફર એકસન (જિ.કે.) શૈલેષભાઈ દેસાઈના મકાનમાં, સાંઈબાબા મંદિરની સામે, લેક વ્યુ એપાર્ટમેન્ટની બાજુમાં,. સ્નેહકુંજ કોલોની, જુના બસસ્ટેન્ડ, વ્યારા
૧૪૫.	ગુજરાત એસોશીયેશન ફોર રુરલ એન્ડ અર્બન ડેવ., ૧૫, વલ્લભનગર, નર્મદા હાઉસ, નિઝર
૧૪૬.	શ્રી સેવા ઉત્તેજક ટ્રસ્ટ, જિતેન્દ્ર મહેતાના મકાનમાં, જુના ગામ, વાણિયા ફળિયું, સોનગઢ
૧૪૭.	આદિવાસી મહિલા ઉત્કર્ષ, ધારેશ્વર સોસાયટી, સુમુલ શીત કેન્દ્રની સામે, ઉચ્છલ
૧૪૮.	શ્રી ગુરુકૃપા એજ્યુકેશન એન્ડ વેલ્ફેર ટ્રસ્ટ, સાંઈ કૃપા, ફડકે નિવાસ, માલીવાડ, વ્યારા
૧૪૯.	શ્રી દક્ષિણ ગુજરાત મ. ગૃ. અને ગ્રા. ઉ. વિકાસ, ઉદ્યોગવાડી કંપાઉન્ડ, વાલોડ
	જિલ્લો : નવસારી
૧૫૦.	જ્યોતિ સમાજ નવસારી (જિ.કે.), પ્રેમજી કોમ્પલેક્ષ, પહેલા માળે, શાંતિદેવી રોડ, નવસારી
૧૫૧.	જ્યોતી સમાજ ગણદેવી, ગજદર લાયબ્રેરી, પહેલા માળે, કંસારવાડ, ગણદેવી
૧૫૨.	નવગુર્જરી મહિલા ગૃહ અને ગ્રામોદ્યોગ વિકાસ મંડળ, સુરેશભાઈ મગનભાઈ પટેલ, ૬-૪૯, ગુજરાત હાઉસીંગ સોસાયટી, ઉદ્યોગનગર, વીજલપોર, તા. જલાલપોર
૧૫૩.	ગાયત્રી મહિલા મંડળ, વાણીયાવાડ, નાનક સેન્ટરની ગલીમાં, ચીખલી
૧૫૪.	ગાયત્રી મહિલા મંડળ, ટાવર પાસે, વાંસદા
	જિલ્લો : વલસાડ
૧૫૫.	અસ્તિત્વ મહિલા ઉત્કર્ષ સંસ્થા (જિ.કે.), તરંગ એપાર્ટમેન્ટ, એલ.આઈ.સી. ઓફિસ સામે, હાલાર રોડ, વલસાડ
૧૫૬.	અસ્તિત્વ મહિલા ઉત્કર્ષ સંસ્થા, ધરમપુર, સીદે પેટ્રોલપંપની સામે, સેન્ટ્રલ બેંકની સામે, બસ સ્ટેન્ડ રોડ, ધરમપુર
૧૫૭.	એસીલ નવસર્જન રુરલ ડેવલોપમેન્ટ ફાઉન્ડેશન, રતન એપાર્ટમેન્ટ, બેંક ઓફ બરોડાની સામે, કિલ્લા પારડી
	જિલ્લો : ભરુચ
૧૫૮.	શ્રી માધવી ગ્રામોદ્યોગ મંડળ, મદની કોમ્પલેકસ, કમલ પેટ્રોલ પંપની બાજુમાં, જંબુસર રોડ, આમોદ
૧૫૯.	શ્રી સિધ્ધિ સાર્વજનિક ટ્રસ્ટ, ૨૦, સાંઈ કોમ્પલેકસ, રીલાયન્સ પેટ્રોલ પંપની બાજુમાં, હાંસોટ-અંકલેશ્વર રોડ, તા. હાંસોટ
૧૬૦.	શ્રી દત્ત મહિલા મંડળ, સુભાષનગર, મુ.તા. જંબુસર
૧૬૧.	જયમાતાજી એજ્યુકેશન ટ્રસ્ટ, પોસ્ટ ઓફિસની ઉપર, ઝગડીયા

અનુ.	કેન્દ્રનું નામ સરનામું
	જિલ્લો : અમદાવાદ (શહેરી)
૧૬૨.	માનવ કલ્યાણ ટ્રસ્ટ (જિ. કે.), ૧૦, સ્વસ્તિક સુપર માર્કેટ, ૪થો માળ, પોપ્યુલર હાઉસની સામે, આશ્રમ રોડ, અમદાવાદ
૧૬૩.	અખિલ ભારતીય સામાજીક સ્વાસ્થ્ય સંઘ, જીલ્લા પંચાયત કમ્પાઉન્ડ, ભદ્ર, અમદાવાદ
૧૬૪.	અમદાવાદ વુમેન્સ એકશન ગૃપ (અવાજ), અવાજઘર, જનરલ હોસ્પીટલ સામે, બાપુનગર, અમદાવાદ
૧૬૫.	અખંડજ્યોત ચેરીટી ટ્રસ્ટ, બી-૮, ગણેશ એપાર્ટમેન્ટ, સુતર કારખાના રોડ, નરોડા, અમદાવાદ
૧૬૬.	અખંડજ્યોત ચેરીટી ટ્રસ્ટ, અમદાવાદ, ફતેપુરા ગામ, પોસ્ટ ઓફીસ પાછળ, પાલડી, અમદાવાદ
૧૬૭.	જ્યોતિસંઘ, ભીમજીપુરા, નવાવાડજ, અમદાવાદ
૧૬૮.	શ્રી માનવસેવા વિકાસ મંડળ, ૨/૩૪, સત્યમનગર, નાગરવીર બન્નુમાન રોડ, રખીયાલ, અમદાવાદ
૧૬૯.	ગુજરાત સ્ત્રી કેળવણી મંડળ, એલીસબ્રીજ પોસ્ટ ઓફિસ પાસે, એલીસબ્રીજ, અમદાવાદ
૧૭૦.	વાત્સલ્ય ટ્રસ્ટ, ૫૭, ઘનશ્યામ કોમ્પલેકસ પાસે, ઓવરબ્રીજની બાજુમાં, ચાંદલોડીયા, અમદાવાદ
૧૭૧.	વિકાસ ગૃહ, વિકાસ ગૃહ, ધૂમકેતુ માર્ગ, પાલડી, અમદાવાદ
૧૭૨.	ગુજરાત મસ્તુરાત સેવા ટ્રસ્ટ, બુખારા હોસ્ટેલ ખમાસા, ઢાલગરવાડ, અમદાવાદ
૧૭૩.	અમદાવાદ મુસ્લીમ વિમેન એસો., રીઝવાન સોસાયટી, જુહાપુરા, અમદાવાદ
૧૭૪.	જ્ઞાન દિપ એજયુ. ટ્રસ્ટ, ૨૧, ગંગા ચેમ્બર, જી.ડી. સ્કુલ પાસે, સૈજપુર બોઘા, નરોડા રોડ, અમદાવાદ
૧૭૫.	માનવ કલ્યાણ ટ્રસ્ટ, ૧૨, એ-મમતા સોપીંગ સેન્ટર, ઓ.એન.જી.સી. ઓફિસ નજીક, અલખ આશ્રમ સામે, જનતા નગર, ચાંદખેડા રોડ, અમદાવાદ
૧૭૬.	શ્રી ભગવતી મહિલા ઉત્કર્ષ મંડળ, ૭૧/૫૫૮, ગુ.હા.બોર્ડ, કલાપી નગર, અસારવા, અમદાવાદ
૧૭૭.	પ્રતિક વિકાસ મંડળ, ૧૬૧, બ્લોક નં. ૧૧, શહેરી ગરીબ આવાસ યોજના, ઔડા ફલેટ, મલ્હોત્રા ફેક્ટરી પાસે, ઓઢવ, અમદાવાદ
૧૭૮.	પ્રતિ વિકાસ મંડળ, ૧૯૮૭/૪ ઈન્દીરા નગર, ચામુંડા માતાના મંદિર સામે, રમણભાઈની દુકાન પાસે, રામોલ, તા. અમદાવાદ
૧૭૯.	રવિ ખાદી ગ્રામોદ્યોગ સંઘ, એલ-૧૦, પ્રિયા કોમ્પલેક્ષ, એસ.બી.આઈ. એટીએમની નીચે, તલાવડી સર્કલ, મુ. હાંસોલ, તા. અમદાવાદ-૭૫
	જિલ્લો : અમદાવાદ (ગ્રામ્ય)
૧૮૦.	વિશ્વ ભારતી સંસ્થા (જી. કેન્દ્ર, ગ્રામ્ય), બચુભાઈ પટેલના મકાનમાં, સદાવ્રત ટ્રસ્ટ સામે, મંદિરવાળી શેરી, ખારાકુવા, સરખેજ, અમદાવાદ
૧૮૧.	મુસ્લીમ વુમન એસો. ટ્રસ્ટ અમવા, કુરેસી મોહલ્લા, મોઢવાડના નાકા ઉપર, મુ.પો. ધંધુકા, અમદાવાદ

અનુ.	કેન્દ્રનું નામ સરનામું
૧૮૨.	વિશ્વભારતી સંસ્થા, અરિહંત ક્લાસીસની નીચે, દરજીનો ટેકરો, પ્રાથમિક સ્કુલ સામે, મુ.પો.તા. બાવળા
૧૮૩.	શ્રી વિવેકાનંદ સમુત્થાન માનવ સેવા અને કેળવણી ટ્રસ્ટ, મનુભાઈ પટેલના મકાનમાં પરાવાસ નીચલોવાસ, મુ.પો.તા. માંડલ
૧૮૪.	ભવાની મહિલા સેવા સંઘ, તળપદા કોળી સમાજની વાડી સામે, રોકડીયા હનુમાન મંદિર પાસે, મુ. પો. તા. બરવાળા
૧૮૫.	ગરુડ સંસ્થા, નીલકંઠ કોમ્પલેક્સ, કલીકુન્ડ, ખેડા બાવળા રોડ, મુ.પો.તા. ધોળકા
૧૮૬.	ભાગ્યોદય સેવા સંઘ, ખાદી કોમ્પલેક્ષ, મુ.પો. રાણપુર
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ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

દર્પણા ધીમ્મર,
સરકારના નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar. 22nd March, 2011.

CONSTITUTION OF INDIA.

No.PT-2011-15-MVD-10-2010-2082-KH :- In exercise of the powers conferred by the proviso to article 309 of the Constitution of India, the Governor of Gujarat hereby makes the following rules further to amend the Assistant Inspector of Motor Vehicles, Class III, Recruitment Rules, 2002, namely:-

1. These rules may be called the Assistant Inspector of Motor vehicles, Class III, Recruitment (Amendment) Rules, 2011.

2. In the Assistant Inspector of Motor Vehicles, Class III, Recruitment Rules, 2002 (hereinafter referred to as the "the said rules"), in rule 3, for clause (c) the following clause shall be substituted, namely:- "(c) Possess a motor driving license of motor cycle and light motor vehicles at the time of appointment,"

3. In the said rules, for rules 4, 5 and 6, the following rules shall be substituted, namely :-

4. A candidate selected by direct selection shall be appointed on contractual basis for first five years from the date of his appointment on such terms and conditions as prescribed by the Government from time to time.

5. The candidate appointed under rule 4, shall be given, at the end of contractual period, the prescribed pay scale of the post of Assistant Inspector of Motor Vehicles, Class III, on his performance being found satisfactory during the stipulated period of service on contractual basis.

6. The candidate appointed under rule 4, shall, during the stipulated period of service on contractual basis, be required to pass the CCC examination for computer knowledge as prescribed in the Gujarat Civil Services Computer Competency Training and Examination Rules, 2006.

7. The candidate appointed under rule 4, shall, during the stipulated period of service on contractual basis, be required to undergo pre-service training and pass the post-training examination in accordance with the rules as may be prescribed by the Government.

8. The candidate appointed under rule 4, shall, during the stipulated period of service on contractual basis, obtain a driving license of heavy goods vehicles or heavy passenger motor vehicles.

9. The candidate appointed under rule 4, shall, after regular appointment, be required to pass an examination in Hindi or Gujarati or both, as the case may be, in accordance with the rules prescribed by the Government.

10. The selected candidate shall have to undergo such training and to pass such examination as may be prescribed by the Government.

11. The candidate shall be required to furnish a security and surety bond in such form, for such amount and for such period as may be prescribed by the Government."

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 24 REGISTERED No. G/GNR/2

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Vol. LII] WEDNESDAY, MARCH 23, 2011/CHAITRA 2, 1933

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Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 22nd March, 2011.

PREVENTION OF TERRORISM ACT, 2002.

No. GK/10/2011/SPC/102002/UO-162/D :- WHEREAS in exercise of the of powers conferred by sub-sections (1) and (4) of section 23 the Prevention of Terrorism Act, 2002 (15 of 2002) (hereinafter referred to as the "said Act"), the Government of Gujarat had, by the Government Notification, Legal Department, No. GK-2003-07-SPC-102002-U.O.-162-D, dated the 6th March, 2003, constituted a Special Court for the case registered at Godhra Railway Police Station, ICR. No. 9/2002 and appointed Ms.S.G.Gokani, Judge, City Civil Court and Sessions Court, Ahmedabad to preside over the Special Court;

AND WHEREAS in exercise of the powers conferred by sub sections (1) and (4) of section 23 of the said Act, Government of Gujarat had, by Government Notification, Legal Department No. GK/17/2003/SPC/102002/U.O.-162/D, Dated the 27th June, 2003, constituted the existing Special Court for all the cases under the said Act and appointed Ms.S.G.Gokani, Judge, City Civil Court and Sessions Court, Ahmedabad to preside over the Special Court;

AND WHEREAS Ms.S.G.Gokani, Judge, City Civil Court and Sessions Court, Ahmedabad had been appointed as Registrar (Recruitment) in the Recruitment Cell, High Court of Gujarat, Ahmedabad;

AND WHEREAS, in exercise of powers conferred by sub section (4) of Section 23 of the said Act read with sub-section (2) of section 2 of the Prevention of Terrorism (Repeal) Act,2004 (26 of 2004), the Government of Gujarat had, by Government Notification Legal Department No. GK-20-2008-SPC-102002-U.O.-162-D, dated the 4th April 2003, appointed Mrs. Jyotsana Yagnik, Judge, City Civil Court, Ahmedabad to be the Judge to exercise the jurisdiction of the said Special Court.

AND WHEREAS, Mrs. Jyotsana Yagnik, Judge, City Civil Court, Ahmedabad had been transferred and posted as Principal District Judge, Sabarakantha at Himmatnagar;

NOW, THEREFORE, in exercise of the powers conferred by sub section (4) of section 23 of the said Act read with sub-section (2) of section 2 of the Prevention of Terrorism (Repeal) Act, 2004 (26 of 2004) and all other powers enabling it in this behalf and in partial modification of Government Notification Legal

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Department, No. GK/20/2008/SPC/102002/U.O.162/D, dated the 4th April 2008, the Government of Gujarat hereby appoints, with the concurrence of the Chief Justice of High Court of Gujarat, Ahmedabad, Shri B.J.Dhandha, Judge, City Civil Court, Ahmedabad to be the Judge to exercise Jurisdiction of the said Special Court in place of Mrs. Jyotsana yagnik, Judge, City Civil Court, Ahmedabad.

By order and in the name of the Governor of Gujarat,

R. D. PATEL
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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सत्यमेव जयते

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

FORESTS & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th March, 2011.

NOISE POLLUTION (REGULATION AND CONTROL RULES), 2000.

No. GVN-2011-(07)-ENV-10-2011-330-E :- In pursuance to the sub-rule (3) of Rule 5 of the Noise Pollution (Regulation and Control) Rules, 2000, and its amendments , the Government of Gujarat hereby earmarks the following days of festive / religious / cultural occasions for the calendar year 2011, permitting the use of loud speakers and /or public address systems between 10.00 PM to 12-00 midnight:

Sr. No.	Festive Occasions	No. of days
1.	Republic Day	1
2.	Independence Day	1
3.	Janmashtami	1
4.	Navaratri	9
5.	Kankariya Carnival	1
6.	Gujarat Golden Jubilee Celebration	1
Total		**14**

Remaining one day out of Fifteen days in a calendar year 2011, is kept reserved for any other function / occasion / celebration (cultural or religious) that the State Government may think fit to notify for this purpose at a later stage. If the celebrations on the Republic Day & Independence Day could be concluded in the State by 10.00 PM, relaxation against such day / days would be allotted to some other religious / festive occasions, as may be decided by the State Government. The date/s for the celebration of the above day/s shall be the one decided by the State Government as a State Celebration.

By Order and in the name of the Governor of Gujarat,

N. K. PATEL,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

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LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 24th March, 2011.

COMMISSIONS OF INQUIRY ACT, 1952.

No. GK/11/2011/COI/102008/84/A :- WHEREAS the Government has, under Government Notification, Legal Department NO. GK/32/2008/COI/102008/178/A, dated the 21st July, 2008, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the matters mentioned in paragraph 2 of the said notification arising out of the death of two school boys in the Gurukul of Sant Shri Asharamji Ashram, Motera;

AND WHEREAS the Commission was required to complete the inquiry and submit its report on or before the 20th October, 2008 as provided in the aforesaid notification of 21st April, 2008 and thereafter within the time limit extended till 31st March, 2011 as provided in the subsequent notifications;

AND WHEREAS the said Commission is not likely to complete the inquiry and submit its report into the said matter to the State Government till 31st March, 2011;

AND WHEREAS the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 31st December, 2011;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No. GK/32/2008/COI/102008/178/A, dated the 21st July, 2008 as follows, namely:-

In the said notification, in paragraph 4, for the words, figures and letters "on or before the 31st March, 2011" the words, figures and letters "on or before the 31st December, 2011" shall be substituted.

By order and in the name of the Governor of Gujarat,

K. M. LALA
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

Extra No. 27

REGISTERED No. G/GNR/2

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Vol. LII] MONDAY, MARCH 28, 2011/CHAITRA 7, 1933

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 28th March, 2011.

MOTOR VEHICLES ACT, 1988.

No. PT/2011/17/MVA/1803/MOS(T)/79/KH :- In exercise of the powers conferred by clause (d)(i) of sub section (1) of section 67 of the Motor Vehicles Act, 1988 (Act No.59 of 1988), and in supersession of Home Department, Government of Gujarat, Notifications No. GG/2003/57/MVA/1803/MOS(T)/79/KH, dated 19/06/2003 issued in this behalf, the Government of Gujarat having regard to the provisions of clause (a) to (d) of the said sub section (1), hereby issues directions to the State Transport Authority and the Regional Transport Authority of Mehsana Region regarding fixing rates of fare and freight for the stage carriages to be operated by the **Lokpriya Travels, U/L-7, Swastik House, Nr.Old High Court Underpass, Navrangpura, Ahmedabad-9,** plying in the areas as specified in the Schedule to this notification with effect from date of publication of this notification in the Official gazette namely:-

Fares (inclusive of the amount of tax on passengers, if any, levied or leviable under the Bombay Motor Vehicles (Taxation of Passengers) Act, 1958 (Bombay LXVII of 1958), for the time being in force and freights for stage carriages plying in the areas and on the routes respectively specified in column 1 & 2 of the schedule appended hereto shall be subject to such maximum rate of fare and freight as specified against them in column 3 & 4 respectively of the said schedule:

Provided that in the case of any journey undertaken by a student, if no such tax is leviable, the fares for such journey shall be so adjusted as to exclude therefrom the amount of such tax.

Provided further that the stage carriage operator shall not commit any breach of conditions of the stage carriage permit as per the Act and the Rules made thereunder as amended from time to time. In case of such a breach, the stage carriage permit sanctioned shall be liable to be cancelled forthwith.

SCHEDULE

Areas	Route	Maximum fare inclusive of passenger Tax	Freight
1	2	3	4
Municipal or Nagarpalika or cantonment areas which shall not be beyond maximum (10) ten Kms. limit having approved routes where stage carriages (City passengers bus services) are operated by Lokpriya Travels, Ahmedabad.	All routes, such routes serving the areas adjacent to Mehsana Nagarpalika approved under the provisio to section 3 of the Bombay Motor Vehicles (Taxation of Passengers) Act 1958	(i) Rs.2.00 (Two rupees only) per passenger for the first stage or part thereof. (ii) Thereafter increase or Rs.1.00 (One rupee only) more per passenger beyond first stage up to three stages. (iii) Increase of Rs-1 -00 (One rupee only) for subsequent each three stages or Part thereof beyond third stage. For express bus & special buses to be provided on occations like mela, religious gathering etc. Rs.1.00 upto 4 kms. And thereafter Rs. 2.00 shall be charged.	(i) Rs.2.00 (Two rupees only) per article of luggage for first two stages or part thereof.) (ii) Thereafter increase of Rs. 1.00 (one rupee only) per article of luggage for each three stages. Provided that a permissible article not exceeding 25 kgs. in weight in aggregate shall not be charged.

Note : (1) For the purpose of this notification, the word "stage" means distance of two kilometers.

(2) In this notification the word "passenger" shall have the same meaning as envisaged to it in the clause (h) of rule 2 and sub rule (1) of Rule 119 of the Gujarat Motor Vehicle Rules, 1989.

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

Extra No. 29

REGISTERED No. G/GNR/2

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AGRICULTURE AND COOPERATION DEPARTMENT

Notification

Sachvalaya, Gandhinagar. 18th March, 2011.

Indian Veterinary Council Act, 1984.

No. GHKH/09/2011/GVC/112010/3077/P.2 : In exercise of the powers conferred by the explanations to the proviso to rule-3 of Gujarat Veterinary Council Rules, 2007, framed under section 32 of Indian Veterinary Council Act, 1984, the Government of Gujarat herby notifies the following members of Gujarat Veterinary Council, for a period of three years,

(a) Members elected from the Veterinary Practitioners registered in the State Veterinary Council

1. Dr. Brahmbhatt Yashvantkumar Jaydevbhai
2. Dr. Gajera Ashokkumar Popatlal
3. Dr. Patel Hasmukhbhai Kanjibhai
4. Dr. Patel Kantilal Mohanlal

(b) Head of the Veterinary Institutions:

1. Dr. J. V. Solanki, Dean/Principal, College of Veterinary Science and Animal Husbandry, Anand.
2. Dr. K. R. Tajane, Dean/Principal, College of Veterinary Science and Animal Husbandry, Sardarkrushinagar.

(c) Nominated Members :

1. Dr. A. H. Bhatt, Regional Joint Director of Animal Husbandry, Vadodara.
2. Dr. K. S. Prajapati, Head & Professor, Department of Veterinary Pathology, Veterinary College Anand.
3. Dr. D. V. Rangnekar, Eminent Scientist

(d) Dr. A. J. Kachhia Patel, Director of Animal Husbandry, Gujarat State, Gandhinagar

(e) Dr. V. G. Bhalani, Member of the Gujarat State Veterinary Association

(f) Dr. Hita J. Patel, Registrar, Gujarat State Veterinary Council, Gandhinagar Member Secretary

The member of the committee will entitled to get facilities and benefits as per the existing Rules.

By order and in the name of the Governor of Gujarat.

HASMUKH PRAJAPATI,
Under Secretary to Government.

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નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૩જી ડિસેમ્બર, ૨૦૧૦.

ભારતનું સંવિધાન.

ક્રમાંક : (જીએન-૪૫)/વીવીકે/૧૨૨૦૦૯/૨૬૯/ઠ.૩:- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ, ગુજરાતના રાજયપાલ, આથી, ગુજરાત વાણિજિયક વેરા નિરીક્ષક, વર્ગ-૩ (ખાસ સ્પર્ધાત્મક પરીક્ષા) નિયમો, ૨૦૧૦ વધુ સુધારવા નીચેના નિયમો કરે છે :-

૧. આ નિયમો ગુજરાત વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ ૩, (ખાસ સ્પર્ધાત્મક પરીક્ષા) (સુધારા) નિયમો, ૨૦૧૦ કહેવાશે.

૨. ગુજરાત વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ ૩, (ખાસ સ્પર્ધાત્મક પરીક્ષા) નિયમો, ૨૦૧૦માં, પરિશિષ્ટ ૧ને બદલે, નીચેનો મજકૂર મૂકવો :-

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"પરિશિષ્ટ-૧

(જુઓ નિયમ ૭)

વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩ની જગા માટે ખાસ સ્પર્ધાત્મક પરીક્ષાના પ્રશ્નપત્રો અને અભ્યાસક્રમ

પ્રશ્નપત્ર		અભ્યાસક્રમ	ગુણ
પ્રશ્નપત્ર-૧ ગુજરાતી (૧૦૦ ગુણ) (પુસ્તકો વિના) સમયગાળો : ૩ કલાક		(૧) અર્થગ્રહણ (ક્રોમ્પ્રિહેન્શન) ફકરામાંથી પ્રશ્નોના ઉત્તરો	૧૦ ગુણ
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		(૩) અહેવાલ લેખન	૧૦ ગુણ
		(૪) પત્ર લેખન	૧૦ ગુણ
		(૫) નિબંધ (૪૦૦ શબ્દોથી વધુ નહિ)	૨૦ ગુણ
		(૬) વિચાર વિસ્તાર	૧૦ ગુણ
		(૭) વ્યાકરણ	૨૦ ગુણ
		(ક) સંયોજક	
		(ખ) લેખન	
		(ગ) શબ્દસમૂહો	
		(ઘ) કહેવતો	
		(ચ) રૂઢિપ્રયોગો	
		(છ) જોડણી	
		(૮) અંગ્રેજીમાંથી ગુજરાતીમાં ભાષાંતર	૧૦ ગુણ
પ્રશ્નપત્ર-૨ અંગ્રેજી (૧૦૦ ગુણ) (પુસ્તકો વિના) સમયગાળો : ૩ કલાક		(૧) નિબંધ (૩૦૦ શબ્દોથી વધુ નહિ) (વિષયો સરકારી કામકાજ સંબંધી હોઈ શકે)	૨૫ ગુણ
		(૨) સંક્ષેપ લેખન	૧૫ ગુણ
		(૩) અહેવાલ લેખન	૧૦ ગુણ
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		(ક) કાળના ઉપયોગ	
		(ખ) શબ્દ સમૂહો, ક્રિયાપદ, રૂઢિપ્રયોગો અને શબ્દભંડોળ	
		(ગ) ક્રિયાના પ્રયોગો બદલવા (Change the Voice)	
		(ઘ) પ્રત્યક્ષ-પરોક્ષ કથન (Direct-Indirect Speech)	
પ્રશ્નપત્ર-૩ (૧૦૦ ગુણ) (પુસ્તકો વિના) સમયગાળો : ૩ કલાક		કરવેરા	
		(ક) ગુજરાત મૂલ્યવર્ધિત વેરા અધિનિયમ, ૨૦૦૩ અને તે હેઠળ કરેલા નિયમો	૩૦ ગુણ
		(ખ) કેન્દ્રીય વેચાણવેરા અધિનિયમ, ૧૯૫૬ અને તે હેઠળ કરેલા નિયમો	૩૦ ગુણ
		(ગ) હિસાબ - લેખન અને હિસાબ-તપાસણી (ઓડિટીંગ)નો કાયદો અને તેના સિધ્ધાંતો	૪૦ ગુણ

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પ્રશ્નપત્ર-૪ (૧૦૦ ગુણ) (પુસ્તકો વિના) સમયગાળો : ૩ કલાક		આકારણી (ક) ગુજરાત મૂલ્યવર્ધિત વેરા અધિનિયમ, ૨૦૦૩ અને તે હેઠળ કરેલા નિયમો, (ખ) કેન્દ્રીય વેચાણવેરા અધિનિયમ, ૧૯૫૬ અને તે હેઠળ કરેલા નિયમો (ગ) ગુજરાત સ્થાનિક વિસ્તારોમાં નિર્દિષ્ટ માલના પ્રવેશ પર વેરા અધિનિયમ, ૨૦૦૧ [ઉમેદવારોએ આકારણી કરવાની રહેશે]	 ૩૦ ગુણ ૩૦ ગુણ ૪૦ ગુણ

નોંધ :

(૧) ગુજરાતીના પ્રશ્નપત્રનું ધોરણ, ગુજરાત માધ્યમિક અને ઉચ્ચતર માધ્યમિક શિક્ષણ બોર્ડના ૧૨મા ધોરણના ગુજરાતી વિષય (ઉચ્ચ સ્તર)ને સમકક્ષ રહેશે.

(૨) અંગેજીના પ્રશ્નપત્રનું ધોરણ, ગુજરાત માધ્યમિક અને ઉચ્ચતર માધ્યમિક શિક્ષણ બોર્ડના ૧૨ મા ધોરણના અંગ્રેજી વિષય (નિમ્ન સ્તર) ને સમકક્ષ રહેશે.''.

ગુજરાતના રાજયપાલના હુકમથી અને તેમના નામે,

કે. એમ. અધ્વર્યુ,
સરકારના નાયબ સચિવ.

નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૯મી ફેબ્રુઆરી, ૨૦૧૧.

ભારતનું સંવિધાન.

ક્રમાંક : જીએન-૫૧-વીવીકે-૧૨૦૯/૨૬૮/ઠ.૩:- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને આ અર્થે કરેલા તમામ નિયમો રદ કરીને, ગુજરાતના રાજયપાલ, આથી, વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩ની જગા માટેની સ્પર્ધાત્મક પરીક્ષાની પધ્ધતિનું નિયમન કરવા માટેની જોગવાઈ કરવા નીચેના નિયમો કરે છે :-

૧. **ટૂંકી સંજ્ઞા.**- આ નિયમો, વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩, સ્પર્ધાત્મક પરીક્ષા નિયમો, ૨૦૧૧ કહેવાશે.

૨. **વ્યાખ્યા.**- :- આ નિયમોમાં, સંદર્ભથી અન્યથા અપેક્ષિત ન હોય તો, -

(ક) 'આયોગ' એટલે ગુજરાત જાહેર સેવા આયોગ;

(ખ) 'સરકાર' એટલે ગુજરાત સરકાર;

(ગ) 'પરીક્ષા' એટલે વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩ની જગા ઉપરની ભરતી માટેની સ્પર્ધાત્મક પરીક્ષા અને નિયમ ૪માં ઉલ્લેખેલ પ્રારંભિક પરીક્ષા અને મુખ્ય પરીક્ષાનો તેમાં સમાવેશ થાય છે;

(ઘ) 'ઠરાવેલું' એટલે આયોગે કરેલા વિનિયમોથી ઠરાવેલું;

(ચ) 'અનુસૂચિ' એટલે આ નિયમોને જોડેલ અનુસૂચિ;

(છ) 'વાણિજ્યિક વેરા નિરીક્ષક' એટલે વાણિજ્યિક વેરા વિભાગની તાબાની સેવામાં, વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩.

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૩. **યોગ્યતા.**- (૧) કોઈ ઉમેદવાર પરીક્ષામાં પ્રવેશ મેળવવા માટે લાયક ગણાશે નહિ, સિવાય કે તે, -

(ક) ભારતનો નાગરિક, અથવા

(ખ) નેપાળનો પ્રજાજન, અથવા

(ગ) ભૂતાનનો પ્રજાજન, અથવા

(ઘ) પાકિસ્તાન, બર્મા (મ્યાનમાર), શ્રીલંકા, પૂર્વ આફ્રિકાના કેન્યા, યુગાન્ડા, ટાન્ઝાનિયાના સંઘ પ્રજાસત્તાક, ઝામ્બિયા, મલાવી, ઝૈર, ઈથીઓપીયા, વગેરે દેશોમાંથી અને વિયેટનામમાંથી સ્થળાંતર કરીને ભારતમાં કાયમી વસવાટ કરવાના ઈરાદાથી આવેલ હોય તેવી ભારતીય મૂળની વ્યક્તિ હોય;

પરંતુ (ખ), (ગ) અને (ઘ) કક્ષાના ઉમેદવારોએ સરકારે કાઢી આપેલું યોગ્યતા પ્રમાણપત્ર રજૂ કરવું જોઈશે.

(૨) જે ઉમેદવારે યોગ્યતા પ્રમાણપત્ર રજૂ કરવું જરૂરી હોય તેને આયોગ દ્વારા લેવાતી પરીક્ષામાં બેસવાની છૂટ આપી શકાશે અને યોગ્યતા પ્રમાણપત્ર રજૂ કરવાને અધીન રહીને તેને કામચલાઉ નિમણૂક પણ આપી શકાશે.

૪. **શૈક્ષણિક લાયકાતો.**- (૧) વાણિજિયક વેરા વિભાગની તાબાની સેવામાં, વાણિજિયક વેરા નિરીક્ષક, વર્ગ-૩ની જગા ઉપર નિમણૂક માટેની સંબંધિત ભરતી નિયમો હેઠળની આવશ્યક લાયકાતો ધરાવતો ઉમેદવાર પરીક્ષામાં બેસવા માટે લાયક ગણાશે.

(૨) મુખ્ય પરીક્ષામાં બેસવા માટે લાયક ઠર્યા હોય તેવા તમામ ઉમેદવારોએ મુખ્ય પરીક્ષા માટેની તેમની અરજી સાથે ડિગ્રી પરીક્ષા પાસ કર્યાના પુરાવા તરીકે ડિગ્રી પરીક્ષાના ગુણપત્રક અથવા ડિગ્રી પ્રમાણપત્રની નકલ રજૂ કરવી જોઈશે. ડિગ્રી પરીક્ષા પાસ કર્યાનો પુરાવો રજૂ કરવામાં કોઈ ઉમેદવાર નિષ્ફળ જાય તો તેવો ઉમેદવાર મુખ્ય પરીક્ષામાં પ્રવેશ માટે ગેરલાયક ઠરશે.

૫. **વયમર્યાદા.**- પરીક્ષામાં પ્રવેશ માટે લાયક ઠરવા માટે ઉમેદવાર, આયોગે જાહેરાતમાં ઠરાવેલી તારીખે, લઘુતમ વય કરતા નાનો હોવો જોઈશે નહિ અને સંબંધિત ભરતી નિયમોમાં ઠરાવેલી વય કરતાં મોટો હોવો જોઈશે નહિ.

૬. **પરીક્ષા યોજવા બાબત.**-(૧) આયોગ, સરકાર તરફથી માંગણી-પત્રક મળ્યેથી, વાણિજિયક વેરા નિરીક્ષકની જગા ઉપરની ભરતી માટે પસંદગી માટે સ્પર્ધાત્મક પરીક્ષા યોજશે.

(૨) પરીક્ષા યોજવા માટેની તારીખ, સમય અને સ્થળો આયોગ નક્કી કરે તે પ્રમાણે રહેશે.

૭. **પરીક્ષાના પ્રકાર.**- (૧) પરીક્ષા નીચેની રીતે બે ક્રમિક તબક્કામાં યોજાશે :-

(૧) મુખ્ય પરીક્ષા માટે ઉમેદવારોની પસંદગી માટે પ્રારંભિક પરીક્ષા (હેતુલક્ષી પ્રકારની); અને

(૨) ઉમેદવારોની આખરી પસંદગી માટે મુખ્ય પરીક્ષા.

(૨) પ્રારંભિક પરીક્ષા અને મુખ્ય પરીક્ષાનો કાર્યક્રમ અનુસૂચિમાં નિર્દિષ્ટ કર્યા પ્રમાણે રહેશે.

૮. **અભ્યાસક્રમ.**- આયોગે દરેક વિષયના અભ્યાસક્રમની વિગતો નક્કી કરવી જોઈશે અને આવો અભ્યાસક્રમ ઉમેદવારોને અરજીપત્રકની સાથે આપવો જોઈશે.

૯. **પરીક્ષાનું માધ્યમ.**- (૧) પ્રશ્નપત્ર ૨ સિવાય પરીક્ષાનું માધ્યમ ગુજરાતી રહેશે.

(૨) પ્રશ્નપત્ર ૨, સામાન્ય અંગ્રેજી ઉત્તરો અંગ્રેજી ભાષામાં હોવા જોઈશે.

૧૦. **પરીક્ષા માટેની અરજી.**- (૧) પ્રારંભિક પરીક્ષામાં બેસવા ઈચ્છતા ઉમેદવારે, આયોગ ઠરાવે તેવા નમૂનામાં, તેવા સમયની અંદર સરકાર નક્કી કરે તેટલી ફી સાથે અરજી સાદર કરવી જોઈશે.

(૨) આયોગ દ્વારા મુખ્ય પરીક્ષામાં પ્રવેશ માટે લાયક જાહેર કરવામાં આવ્યા હોય તેવા ઉમેદવારોએ, આયોગ ઠરાવે તેવા નમૂનામાં સરકાર નક્કી કરે તેટલી ફી સાથે ફરીથી અરજી કરવી જોઈશે.

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(૩) આયોગ ઠરાવે તેવી રીતે ફી ભરાવી જોઈશે અને એકવાર ચૂકવેલી ફી રીફંડ કરવામાં આવશે નહિ અથવા આગામી પરીક્ષા માટે રાખી (આગળ લઈ જઈ) શકાશે નહિ.

(૪) અરજીપત્ર પાછું ખેંચવા માટેની અરજદારની વિનંતી કોઈ પણ સંજોગોમાં સ્વીકારવામાં આવશે નહિ.

૧૧. <u>પરીક્ષામાં હાજર રહેવા બાબત.</u>- ઉમેદવારે તેમના પોતાના ખર્ચે પરીક્ષામાં હાજર રહેવું પડશે.

૧૨. <u>ઉમેદવારની નિમણૂંક.</u>- ઉમેદવારની નિમણૂક વાણિજિયક વેરા નિરીક્ષકની જગા માટેના ભરતી નિયમોની જોગવાઈઓને અધીન રહીને કરવામાં આવશે.

૧૩. <u>એકાધિક લગ્નના કારણે નિમણૂક માટેની ગેરલાયકાત.</u>-

(૧) (ક) જે વ્યક્તિના પતિ/પત્ની હયાત હોય તેવી વ્યક્તિ સાથે જેણે લગ્ન કર્યા હોય અથવા લગ્નનો કરાર કર્યો હોય તેવી કોઇ વ્યક્તિ, અથવા

(ખ) જે વ્યક્તિના પતિ/પત્ની હયાત હોય તેવી કોઈ વ્યક્તિએ અન્ય વ્યક્તિ સાથે લગ્નનો કરાર કર્યો હોય અથવા લગ્ન કર્યા હોય તો તેવી કોઈ વ્યક્તિ

સદરહુ જગા પર નિમણૂકને પાત્ર થશે નહિ :

પરંતુ રાજય સરકાર, પોતાને ખાતરી થાય કે આવા લગ્ન આવી વ્યક્તિને અને લગ્નના અન્ય પક્ષકારને લાગુ પડતા અંગત કાયદા હેઠળ પરવાનગીપાત્ર (સ્વીકાર્ય) છે અને તેમ કરવા માટેના ખાસ કારણે છે, તો કોઈ પણ વ્યક્તિને આ પેટા-નિયમના અમલમાંથી મુક્તિ આપી શકશે.

(૨) ઉમેદવારે, તે અથવા યથાપ્રસંગ, તેણી પરિણીત છે કે કેમ અને પુરુષ હોય તેવા ઉમેદવારના કિસ્સામાં, તેને એક કરતાં વધુ પત્ની હયાત છે કે કેમ અને સ્ત્રી હોય તેવા ઉમેદવારના કિસ્સામાં, જેની બીજી પત્ની હયાત હોય તેવા પુરુષ સાથે તેણીએ લગ્ન કરેલ છે કે કેમ તે અરજીપત્રમાં જાહેર કરવું પડશે.

૧૪. <u>આયોગનો નિર્ણય આખરી હોવા બાબત.</u>- (ક) આયોગને ખાતરી થાય કે ઉમેદવાર તમામ બાબતોમાં યોગ્યતા ધરાવે છે અને તેણે જરૂરી ફીની ચુકવણી સહિત તમામ જરૂરિયાતો પૂરી કરેલ છે તે સિવાય ઉમેદવારને મુખ્ય પરીક્ષામાં બેસવા માટેની છૂટ આપવામાં આવશે નહિ.

(ખ) મુખ્ય પરીક્ષામાં પ્રવેશ માટેની ઉમેદવારની યોગ્યતાના સંદર્ભમાં આયોગનો નિર્ણય આખરી ગણાશે.

૧૫. <u>પરીક્ષાને લગતા નિયંત્રણો.</u>- (૧) ઉમેદવારે તમામ પ્રશ્નપત્રોના જવાબ સ્વ-હસ્તાક્ષરમાં આપવાના રહેશે.

પરંતુ અંધ ઉમેદવારોને, આયોગ આ અર્થે બહાર પાડે તેવી સૂચનાને અધીન રહીને, પરીક્ષામાં લહિયા (Scribe) ની મદદથી લખવાની છૂટ આપવામાં આવશે.

(૨) ઉમેદવારને સેલ્યુલર ફોન, કેલ્ક્યુલેટર, પેજર અથવા સંદેશા-વ્યવહારના બીજા કોઈપણ ઈલેક્ટ્રોનિક સાધનો પોતાની સાથે લઈ જવાની છૂટ આપવામાં આવશે નહિ:

પરંતુ ઉમેદવારને ફક્ત મુખ્ય પરીક્ષામાં આયોગ ઠરાવે તેવા રૂઢિગત પ્રકારના પ્રશ્નપત્રમાં સિમ્પલ બેટરી ઓપરેટેડ નોન-પ્રોગ્રામેબલ પોકેટ કેલ્ક્યુલેટર લાવવાની અને તેનો ઉપયોગ કરવાની છૂટ આપી શકાશે. તેમ છતાં, પરીક્ષા-ખંડમાં ઉમેદવારો વચ્ચે કેલ્ક્યુલેટરની આપ-લે કરવાની છૂટ આપવામાં આવશે નહિ.

૧૬. <u>મુખ્ય પરીક્ષામાં બેસવા બાબત.</u>- (૧) પ્રારંભિક (પ્રિલિમિનરી) પરીક્ષામાં આયોગ નક્કી કરે તેવા પાત્રતા ગુણ મેળવ્યા હોય તેવા ઉમેદવારોને મુખ્ય પરીક્ષામાં બેસવાની છૂટ આપવામાં આવશે.

૧૭. **પસંદગી યાદી.**-(૧) આયોગે મુખ્ય પરીક્ષાને અંતે દરેક ઉમેદવારને આપેલા ગુણના આધારે, ગુણવત્તા ક્રમમાં, અનામત કક્ષાના ઉમેદવારો સહિત સફળ ઉમેદવારોની પસંદગી યાદી તૈયાર કરવી જોઈશે અને આયોગે, તે ક્રમમાં, જાહેરાતમાં જણાવેલી બેઠકોની સંખ્યાના પ્રમાણમાં, નિમણૂક માટે લાયકાત ધરાવતા ઉમેદવારોની ભલામણ કરવી જોઈશે :

પરંતુ (વિચરતી આદિજાતિ અને વિમુક્ત આદિજાતિ સહિત) અનુસૂચિત જાતિ, અનુસૂચિત આદિજાતિ અને સામાજિક અને શૈક્ષણિક રીતે પછાત વર્ગના ઉમેદવારો માટે અનામત રાખેલી ખાલી જગા સામાન્ય કક્ષા માટે નક્કી કરેલા પાત્રતા ગુણના આધારે ભરી ન શકાય, ત્યારે આયોગ, અનામત જગામાં પડેલી ખોટ પૂરવા માટે ગુણનું ધોરણ હળવું કરી શકશે.

(૨) આયોગે, આ રીતે જાહેરાતમાં આપેલી જગાની સંખ્યાના લગભગ ૨૫ % જેટલી જગાની સંખ્યામાં પ્રતિક્ષા યાદી તૈયાર કરવી જોઈશે. પ્રતિક્ષા યાદી સરકારે બહાર પાડેલી સૂચના અનુસાર અમલમાં રહેશે.

૧૮. **પરીક્ષાનું પરિણામ.**- (૧) આયોગે પરીક્ષાનું પરિણામ રાજપત્રમાં પ્રસિધ્ધ કરવું જોઈશે.

(૨) (ક) ઉપર્યુક્ત જગા પર નિમણૂક માટે જેના નામની સરકારને ભલામણ કરવાની હોય, તેવા ઉમેદવારોનું પરિણામ, દરેક ઉમેદવારના બેઠક ક્રમાંક અને તેમણે મેળવેલા કુલ ગુણ સહિત, ઉમેદવારના ગુણવત્તા ક્રમ અનુસાર ગોઠવવું જોઈશે.

(ખ) આયોગે, જેને પ્રતિક્ષા યાદીમાં રાખવાના હોય તેવા ઉમેદવારોના નામ પ્રદર્શિત કરવા જોઈશે.

(ગ) આયોગે, અસફળ ઉમેદવારોનું પરિણામ પણ દરેક ઉમેવારના બેઠક ક્રમાંક અને તેણે મેળવેલા કુલ ગુણ સહિત પોતાના નોટિસ બોર્ડ પર પ્રદર્શિત કરવું જોઈશે.

(૩) આયોગે, રાજપત્રમાં પ્રસિધ્ધ થયેલા પરિણામની એક નકલ સરકારને મોકલવી જોઈશે.

૧૯. **મુખ્ય પરીક્ષાના ગુણની ફેરચકાસણી.**-(૧) પ્રારંભિક (પ્રિલિમિનરી) પરીક્ષાના સંબંધમાં ગુણની ફેરચકાસણીની પરવાનગી આપવામાં આવશે નહિ.

(૨) મુખ્ય પરીક્ષાના ગુણની ફેરચકાસણી કરાવવા ઈચ્છતા ઉમેદવાર, દરેક પ્રશ્નપત્ર માટે આયોગ નક્કી કરે તેટલી ફી સાથે, મુખ્ય પરીક્ષાનું આખરી પરિણામ જાહેર થયાની તારીખથી ત્રીસ દિવસની મુદતની અંદર, આયોગને અરજી કરી શકશે.

(૩) મુખ્ય પરીક્ષાનું ગુણપત્રક મેળવવા ઈચ્છતા ઉમેદવારે આયોગ નક્કી કરે તેટલી ફી સાથે આખરી પરિણામ જાહેર થયાની તારીખથી પંદર દિવસની મુદતની અંદર આયોગને અરજી કરવી જોઈશે.

૨૦. **સરકારને પરિણામ મોકલવા બાબત**:- આયોગે પરિણામ જાહેર થયેથી, સરકારને જેમની નિમણૂક માટે ભલામણ કરવામાં આવી હોય તે ઉમેદવારોની જરૂરી વિગતો જેવી કે ઉમેદવાર અનુસૂચિત જાતિ, અનુસૂચિત આદિજાતિ અથવા વિચરતી આદિજાતિ અને વિમુક્ત આદિજાતિ સહિતની સામાજિક અને આર્થિક રીતે પછાત જાતિઓમાંથી છે કે કેમ અને તેની જન્મ તારીખ, લાયકાત અને સરકાર આદેશ કરે તેવી બીજી વિગતો સહિતની યાદી મોકલવી જોઈશે.

૨૧. **નિમણૂંક અંગેનો કોઈ હક મળશે નહિ**:-પરીક્ષામાં સફળ થવાથી જ નિમણૂક અંગેનો કોઈ હક મળશે નહિ અને સરકારને જરૂરી જણાય તેવી તપાસ કર્યા પછી, એવી ખાતરી થાય કે જગા પર નિમણૂક માટે ઉમેદવાર તમામ રીતે યોગ્ય છે તે સિવાય કોઈપણ ઉમેદવારને નીમી શકાશે નહિ.

૨૨. **તબીબી કસોટી**:- પસંદ થયેલા ઉમેદવારોએ સરકાર આ અર્થે કરે તેવા નિયમો અનુસાર તબીબી કસોટી ઉત્તીર્ણ કરવાની રહેશે.

૨૩. **અજમાયશની મુદત**:- પસંદ થયેલા ઉમેદવારને એક વર્ષની મુદત માટે અજમાયશ પર રાખવામાં આવશે.

પરંતુ આ અર્થે કરેલા નિયમો અનુસાર અજમાયશની મુદત, સરકાર લંબાવી શકાશે.

૨૪. **તાલીમ અને પરીક્ષા**:- પસંદ થયેલા ઉમેદવારે, સરકાર ઠરાવે તેવી તાલીમ લેવી જોઈશે અને તેવી પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે.

૨૫. **શિસ્તવિષયક પગલાં** :-

આયોગ જે ઉમેદવારને, -

(૧) કોઈપણ સાધનો દ્વારા પોતે ઉમેદવારી માટે ટેકો મેળવવા બદલ;

(૨) ખોટું વ્યક્તિત્વ ધારણ કરવા બદલ;

(૩) કોઈ વ્યક્તિને ખોટું વ્યક્તિત્વ ધારણ કરાવવા બદલ;

(૪) બનાવટી દસ્તાવેજો અથવા ચેડા કરેલા દસ્તાવેજો રજૂ કરવા બદલ;

(૫) ભૂલવાળા અથવા ખોટાં અથવા કોઈ મહત્વની માહિતી છૂપાવતા નિવેદનો કરવા બદલ;

(૬) પરીક્ષા માટેની તેની ઉમેદવારીના સંબંધમાં કોઈ બીજી અનિયમિત અથવા આયોગ્ય સાધનનો આશ્રય લેવા બદલ;

(૭) પરીક્ષા દરમિયાન ગેરવ્યાજબી સાધનોનો ઉપયોગ કરવા બદલ;

(૮) લખાણમાં અયોગ્ય (વાહિયાત) ભાષા અથવા બિભત્સ બાબત સહિત અસંગત બાબત લખવા બદલ;

(૯) પરીક્ષા ખંડમાં કોઈ બીજી રીતે ગેરવર્તણૂક કરવા બદલ;

(૧૦) પરીક્ષાના સંચાલન માટે આયોગે રોકેલા સ્ટાફને હેરાન કરે અથવા શારીરિક રીતે ઈજા પહોંચાડવા બદલ;

(૧૧) પૂર્વવર્તી ખંડોમાં નિર્દિષ્ટ તમામ અથવા તે પૈકી કોઈ કાર્ય કરવાનો પ્રયત્ન કરે અથવા યથાપ્રસંગ તેમાં મદદગીરી કરવા બદલ; અથવા

(૧૨) પરીક્ષા આપવાની તેને પરવાનગી આપતા તેના પ્રવેશ પ્રમાણપત્રની સાથે

ઉમેદવારોને આપેલી સૂચનાઓ પૈકીની કોઈનો ભંગ કરવા બદલ,

દોષિત જાહેર કરે તે ઉમેદવાર, પોતે ફોજદારી કાર્યવાહીને પાત્ર થવા ઉપરાંત,-

(ક) તે જે પરીક્ષાનો ઉમેદવાર હોય તેમાંથી આયોગ દ્વારા ગેરલાયક ઠરાવવાને પાત્ર થશે; અથવા

(ખ) કાયમી ધોરણે અથવા નિર્દિષ્ટ મુદત માટે તેને;

(૧) આયોગ તેમના દ્વારા સીધી પસંદગી માટેની કોઈપણ પરીક્ષામાં ઉપસ્થિત થવામાંથી : અથવા

(૨) રાજય સરકાર દ્વારા તેના હેઠળના કોઈ રોજગારમાંથી,

બાકાત રાખવાને પાત્ર થશે

પરંતુ, ઉમેદવાર તે અર્થે કરવા ઈચ્છે તેવી કોઈ લેખિત રજૂઆત કરવાની ઉમેદવારને તક આપ્યા સિવાય, ખંડ(ક) અથવા ખંડ (ખ) હેઠળ કોઈ દંડ નાખી શકાશે નહિ.

(૧) જો તે આગાઉથી સરકારી સેવામાં હોય તો, સમુચિત નિયમો હેઠળના શિસ્તવિષયક પગલાંને પાત્ર થશે.

અનુસૂચિ

(જુઓ નિયમ ૭)

વિભાગ ૧

સ્પર્ધાત્મક પરીક્ષા બે ક્રમિક તબક્કામાં રહેશે:

(ક) આયોગ, ઉમેદવારોની મુખ્ય પરીક્ષામાં બેસવા પાત્ર હોવાની પસંદગી કરવા માટે (હેતુલક્ષી પ્રકારની) પ્રારંભિક પરીક્ષા રાખશે; અને

(ખ) આયોગ, જે ઉમેદવારોએ, આયોગે નિર્ધારિત કર્યા મુજબ પ્રારંભિક પરીક્ષામાં લાયકી ગુણ મેળવ્યા હશે તેમના માટે મુખ્ય પરીક્ષા રાખશે.

ક. પ્રારંભિક પરીક્ષા :-

પ્રારંભિક પરીક્ષામાં હેતુલક્ષી પ્રકારના બહુવિધ વિકલ્પ (મલ્ટીપલ ચોઈસ) પ્રશ્નોવાળું એક પ્રશ્નપત્ર રહેશે અને અનુસૂચિના વિભાગ-૨માં દર્શાવ્યા પ્રમાણે તે મહત્તમ કુલ ગુણ ૨૦૦-નું રહેશે. મુખ્ય પરીક્ષામાં પ્રવેશને લાયક જાહેર થયેલા ઉમેદવારોએ પ્રારંભિક પરીક્ષામાં મેળવેલા ગુણની ગણતરી તેમનો આખરી ગુણવત્તાક્રમ નક્કી કરવા માટેના [ગણતરીમાં લેવામાં આવશે] નહિ. મુખ્ય પરીક્ષામાં બેસવા દેવા માટેની ઉમેદવરોની સંખ્યા જાહેરખબરમાં આપેલી કુલ ખાલી જગાઓની સંખ્યાની આશરે પંદર ગણી રહેશે, તે/તેણી અન્યથા

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મુખ્ય પરીક્ષા માટે પ્રવેશને પાત્ર છે એ શરતને અધીન રહીને, આયોગે પ્રારંભિક પરીક્ષામાં લાયક જાહેર કરેલા ઉમેદવાર જ મુખ્ય પરીક્ષા માટે પ્રવેશને પાત્ર ગણાશે.

ખ. **મુખ્ય પરીક્ષા :-**

મુખ્ય પરીક્ષા લેખિત પરીક્ષા હશે જે આ અનુસૂચિના વિભાગ-૩માં દર્શાવ્યા પ્રમાણે દરેકના ૧૦૦ ગુણવાળા વર્ણનાત્મક પ્રકારના ત્રણ પ્રશ્નપત્રોની રહેશે. મુખ્ય પરીક્ષામાં ઉમેદવારોએ મેળવેલા ગુણ પરથી તેઓનો આખરી ક્રમ નક્કી થશે.

વિભાગ ૨

પ્રારંભિક પરીક્ષાની પધ્ધતિ અને તેના વિષય :-

વિષય	કુલ ગુણ	સમયગાળો
સામાન્ય અભ્યાસ	૨૦૦	બે કલાક

નોંધ :

૧. અભ્યાસક્રમ આયોગ ઠરાવે અને જાહેર કરે તેવો રહેશે. અભ્યાસક્રમની વિષયવસ્તુ પદવી કક્ષાની રહેશે.
૨. પ્રશ્નપત્ર હેતુલક્ષી પ્રકાર (બહુવિધ વૈકલ્પિક પ્રશ્ન) નું રહેશે.
૩. પ્રશ્નપત્ર ગુજરાતીમાં તૈયાર કરવું જોઈશે.
૪. અંધ ઉમેદવારોને વીસ મિનિટનો વધારોનો સમય આપી શકાશે.

વિભાગ ૩

મુખ્ય પરીક્ષા પધ્ધતિ અને તેના વિષયો :-

ફરજિયાત પ્રશ્નપત્રો

	પ્રશ્નપત્ર	વિષય	ગુણ	સમયગાળો
૧.	પ્રશ્નપત્ર-૧	ગુજરાતી	૧૦૦ ગુણ	ત્રણ કલાક
૨.	પ્રશ્નપત્ર-૨	સામાન્ય અંગ્રેજી	૧૦૦ ગુણ	ત્રણ કલાક
૩.	પ્રશ્નપત્ર-૩	સામાન્ય અભ્યાસ	૧૦૦ ગુણ	ત્રણ કલાક

નોંધ :

૧. ગુજરાતી પ્રશ્નપત્રનું ધોરણ ગુજરાત ઉચ્ચતર માધ્યમિક શિક્ષણ બોર્ડના બારમા ધોરણના ગુજરાતી વિષય (ઉચ્ચસ્તર)ની સમકક્ષ રહેશે.
૨. સામાન્ય અંગ્રેજીના પ્રશ્નપત્રનું ધોરણ ગુજરાત ઉચ્ચતર માધ્યમિક શિક્ષણ બોર્ડના બારમા ધોરણના અંગ્રેજી વિષય (નિમ્ન સ્તર)ની સમકક્ષ રહેશે
૩. સામાન્ય અભ્યાસના પ્રશ્નપત્ર માટેના અભ્યાસક્રમનું ધોરણ અને વિષય વસ્તુ પદવી કક્ષાનું રહેશે.
૪. દરેક પ્રશ્નપત્રનો અભ્યાસક્રમ આયોગ ઠરાવે અને જાહેર કરે તેવો રહેશે
૫. અંધ ઉમેદવારોને દરેક પ્રશ્નપત્ર માટે ત્રીસ મિનિટનો વધારોનો સમય આપી શકાશે.

ગુજરાતના રાજયપાલના હુકમથી અને તેમના નામે,

સી. પી. ઝીંઝુવાડિયા,
સરકારના નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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Extra No. 31

REGISTERED No. G/GNR/2

सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

Vol. LII] WEDNESDAY, MARCH 30, 2011/CAITRA 9, 1933

Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

HOME DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 30th March, 2011.

CODE OF CRIMINAL PROCEDURE, 1973

No.GG/ 14 /l l/SB.II/COM/132011/30311:- WHEREAS the Government of Gujarat has come to know that a book titled as "Great Soul: Mahatma Gandhi and His Struggle With India" written by Joseph Lelyveld has been published;

AND WHEREAS, in the said book some highly indecent and objectionable remarks have been made by the author of the book against Mahatma Gandhi, the Father of the Nation;

AND WHEREAS, Mahatma Gandhi is a highly esteemed figure of this Nation and is highly respected not only all over the Country but all over the World;

AND WHEREAS, the Government of Gujarat is of the opinion that the remarks made against Mahatma Gandhi in the said book are likely to disturb the public tranquility;

AND WHEREAS, the Government of Gujarat is, of the opinion that every copy of such book in question should be forfeited;

NOW THEREFORE, in exercise of the powers conferred by section 95 of the Code of Criminal Procedure, 1973 (2 of 1974) read with section 153 A of the Indian Penal Code, 1860 (V of 1860), the Government of Gujarat hereby declares that every copy of such book found in the State of Gujarat be forfeited to the State Government.

By order and in the name of the Governor of Gujarat,

D. R. PATEL,
Under Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 32 REGISTERED No. G/GNR/2

सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar. 30th March, 2011.

Commissions of Inquiry Act, 1952.

No. GK/12/2011/COI/102009/205/A : WHEREAS the Government has, under Government Notification, Legal Department No. GK/11/2010-COI/102009/205/A, dated the 8th July, 2009, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the matters mentioned in paragraph 2 of the said notification;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 30th November, 2009 as provided in the aforesaid Notification of 8th July, 2009, and thereafter within the time limit extended till 31st March, 2011, as provided in the different subsequent Notifications;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the State Government;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 30th June, 2011;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No. GK/11/2010-COI/102009/205/A, dated the 8th July, 2009, as follows, namely :-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 31st March, 2011" the words, figures and letters "on or before the 30th June, 2011" shall be substituted.

By order and in the name of the Governor of Gujarat,

K. M. LALA,
Deputy Secretary to Government

Government Central Press, Gandhinagar.

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Extra No. 33 REGISTERED No. G/GNR/2

सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

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Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

Food, Civil Supplies and Consumer Affairs Department
Notification
Sachivalaya, Gandhinagar, 31st March, 2011.

Legal Metrology Act, 2009.

No. GTH-2011-30-KMV-102010-422744-D:- WHEREAS, certain draft rules were published as required by sub-section (4) of section 53 of Legal Metrology Act, 2009 (1 of 2010), at pages 2-1 to 2-72 in the Gujarat Government Gazette, Extraordinary, Part IV-A, dated the 6th January, 2011, under the Government Notification, Food, Civil Supplies and Consumer Affairs Department, No: GTH- 2011-2-KMV-102010-422744-D, dated 6th January, 2011, inviting objection or suggestion from all persons likely to be affected thereby within a period of thirty days from the date of publication of the said notification in the *official Gazette*.

AND WHEREAS, the objections or suggestions received by the Government on the said draft rules, have been considered by the Government;

NOW, THEREFORE, in exercise of the powers conferred by sub-section (1) of section 53 of the Legal Metrology Act, 2009 (1 of 2010), the Government of Gujarat hereby makes the following rules, namely :-

1. **Short title, extent and commencement-** (1) These rules may be called the Gujarat Legal Metrology (Enforcement) Rules, 2011.
(2) They extend to the whole of the State of Gujarat.
(3) They shall come into force on the 1st April, 2011.

2. **Definitions** – In these rules, unless the context otherwise requires,
(a)"Act" means the Legal Metrology Act, 2009;
(b)"Reference Standards Laboratory" means a laboratory set up by the Central Government under the Act, where Reference Standards, Secondary Standards and Working Standards are maintained;
(c) "Schedule" means a Schedule appended to these rules;
(d)words and expressions used in these rules and not defined but defined in the Act shall have the meanings respectively assigned to them in the Act.

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3. **Reference Standards** – The Reference Standards shall be kept at such place, in such manner and in such custody as prescribed under the Legal Metrology (National Standards) Rules, 2011.

4. **Secondary Standards** – (1) Every Secondary Standards shall be verified at any of the Reference Standards Laboratories, in such manner and at such periodical intervals as may be prescribed under the rules to be made in this behalf and shall, if found on such verification to conform to the Standards established by or under the Act, be stamped by Reference Standard Laboratory or a certificate of verification will be issued by that laboratory.

(2) The Secondary Standards shall be kept at such place, and in such custody as the controller may direct.

5. **Working Standards** – (1) Every Working Standard shall be verified either at any of the Reference Standards laboratories or at any of the Secondary Standards Laboratories maintained by the State Government, in such manner and at such periodical intervals as may be prescribed under the rules to be made in this behalf and shall, if found on such verification to conform to the Standards established by or under the Act, be stamped or certificate of verification will be issued by that laboratory as the case may be.

(2) The Working Standards shall be kept in the custody of legal metrology officer.

6. **Secondary Standard balances** – (1) A set of Secondary Standard balances shall be maintained at every place where Secondary Standard Weights are kept.

(2) The number, types and specifications of such balances shall be such as may be prescribed under the Legal Metrology (General) Rules, 2011.

(3) Every Secondary Standard balance shall be verified at least once within a period of twelve months and shall be adjusted, if necessary, to make it correct within the limits of sensitivity and other metrological qualities prescribed under the Act, by the Reference Standards Laboratory or by the Controller or such other officer as may be authorized by the Controller in this behalf.

7. **Working Standard Balances:** (1) A set of Working Standard balances shall be maintained at every place where Working Standard Weights are kept.

(2) The number, types and specifications of such balances shall be such as may be prescribed under the Legal Metrology (General) Rules, 2011.

(3) Every Working Standard balance shall be verified at least once within a period of twelve months and shall be adjusted, if necessary, to make it correct within the limits of sensitivity and other metrological qualities prescribed under the Legal Metrology (General) Rules, 2011, by the Reference Standard Laboratory or at any of the place where Secondary Standards are maintained by the State Government.

8. **Physical characteristics, configuration, constructional details of Weights and Measures**– Every Weight or measure used or intended to be used in any transaction or for protection shall conform as regards physical characteristic, configuration, constructional details, materials, performance, tolerances and such other details, to the specifications prescribed under the Act or the Legal Metrology (General) Rules, 2011.

9. **Use of Bullion Weights, Carat Weights, etc.** – (1) No Weight other than a Bullion Weight shall be used in any transaction in bullion including precious metals, pearls, ornaments or other articles made of gold or silver.

(2) No weight other than a carat weight shall be used in any transaction in precious stones.

(3) Only beam scale of class A or class B category or a non automatic weighing instrument of high accuracy class (class II) or special accuracy class (class I) shall be used in any transaction referred to in sub-rules (1) and (2).

10. **Use of weights only or measures only or number only in certain cases.** – Except in the cases of commodities specified in **Schedule I,** the declaration of quantity in every transaction, dealing or contract, or for protection shall be terms of the unit of -

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12. **Suspension and cancellation of licence granted:**

(1) The Controller or such other officer authorized by him in this behalf may, if he has any reasonable cause to believe that the holder of any licence issued, renewed or continued under this Act has made any statement in, or in relation to, any application for the issue, renewal or continuance of the licence, which is incorrect or false in any material particular or has contravened any provision of the Act or any rule or order made thereunder, suspend such licence, pending the completion of any inquiry against the holder of such licence:

Provided that no such licence shall be suspended unless the holder thereof has been given a reasonable opportunity of showing cause against the proposed action:

Provided further that where the inquiry referred to in this sub-rule is not completed within a period of three months from the date of suspension of a licence, such suspension shall, on the expiry of the period aforesaid, stand vacated.

(2) The Controller or such other officer authorized by him in this behalf may, if he is satisfied, after making such inquiry as he may think fit, that the holder of a licence has made a false or incorrect statement of the nature referred to in sub-rule (1), or has contravened any law or order referred to in that sub-rule cancel such licence:

Provided that no such licence shall be cancelled unless the holder thereof has been given a reasonable opportunity of showing cause against the proposed action.

(3) Every person whose licence has been suspended shall, immediately after such suspension, stop functioning as such licencee and shall not resume business as such licencee until the order of such suspension has been, or stands, vacated.

(4) Every licencee whose licence has been suspended or cancelled shall, after such suspension or cancellation, as the case may be, surrender such licence to the authority by which such licence was issued.

(5) Every licencee whose licence has been cancelled shall, within a period of thirty days from the date of such cancellation, or within such further period, not exceeding three months from such date, as the Controller or such other officer authorized by him in this behalf may, on sufficient cause being shown, allow, dispose of the weights or measures which were in his possession, custody or control on the date of such cancellation and in the event of his failure to do so, the Controller or any other officer authorized by him, in writing, in this behalf, may seize and dispose of the same and distribute the proceeds thereof in such manner as may be prescribed.

13. **Records to be maintained by manufacturers, etc** - Every manufacturer of or repairer of, or dealer in weight or measure licenced under the Act and these rules shall maintain records and registers in the appropriate form as prescribed in Schedule VII. Every licence holder shall furnish appropriate returns in the form as prescribed in Schedule VII duly signed by him to the concerned officer within 15 days from the end of the quarter to which the return relates, if required he shall submit the same in Online form also.

14. **Periodical interval for the verification of weights or measures –**

Periodical interval for the verification of weights or measures shall be as specified in the Legal Metrology (General) Rules, 2011.

15. **Verification and inspection of weights or measures –**

(1) Every person using any weight or measure in any transaction or for protection shall present such weight or measure for verification / re-verification, at the office of the Legal Metrology Officer or at such other place as the Legal Metrology Officer may specify in this behalf on or before the date on which the verification falls due and shall make an application as per the form prescribed in Schedule XIII for getting that weight or measure verified / re-verified:

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(a) weight, if the commodity is solid, semi-solid, viscous or a mixture of solid and liquid ;

(b) length, if the commodity is sold by linear measure;

(c) area, if the commodity is sold by area measure;

(d) volume, if the commodity is liquid or is sold by cubic measure; or

(e) number, if the commodity is sold by number.

11. **Licencing of manufacturer, repairer and dealer of Weights and Measures –**

(1) Every manufacturer of, or repairer of, or dealer in, weight or measure shall make an application for the issue of a licence to the Controller legal metrology or such other officer as may be authorized by him in this behalf, in the appropriate form as prescribed in Schedule II A:

Provided that no licence to repair shall be required by a manufacturer for repair weight or measure manufactured by him and used in a State other than the State of manufacture of the same, but the manufacturer has to inform in advance the concerned legal metrology officer about the repairing.

(2) Every manufacturer of, or repairer of, or dealer in weight or measure shall make an application for the renewal of a licence within thirty days before the expiry of validity of the licence to the Controller of legal metrology or such other officer as may be authorized by him in this behalf, in the appropriate form as prescribed in Schedule II B.

(3) Every licence issued to a manufacturer, repairer or dealer shall be in the appropriate form as prescribed in Schedule III.

(4) Every licence issued to a manufacturer, repairer, or dealer shall be valid for a minimum period of one calendar year and may be renewed for a period of five years, by the Controller or such other officer as may be authorized by him in this behalf on payment of per year fee as specified in Schedule IV.

(5) The fee payable for the alteration of a licence or for the issue of a duplicate licence shall be one half of the licence fee as specified in Schedule IV and an application shall be made in the form as prescribed in Schedule XII.

Provided that an additional fee at full the rates specified in Schedule IV shall be payable by the applicant if he is permitted by the Controller to make an application for the renewal of a licence within a period of three months from the date of expiry of the licence.

(6) The Controller or such other officer as may be authorized by him in this behalf shall maintain a register of licenced manufacturers, dealers and repairers in the form as prescribed in Schedule V.

(7) Every manufacturer, repairer or dealer licenced under the Act and these rules shall maintain such workshop, equipments, tools, registers, etc. as the case may be, as per the terms and conditions of the licence.

(8) Every repairer licenced under the Act and these rules shall furnish a security deposit for each licence to the State Government as specified in Schedule VI.

(9) Every licence issued or renewed under this Act shall be displayed in a conspicuous place in the premises where the licencee carries on business.

(10) A licence issued or renewed under this Act shall not be saleable nor transferable.

(11) The basic minimum requirements for licensee repairers shall be as prescribed in Schedule VI-A. The existing licensed repairer shall comply with the prescribed provisions within a period of 12 months from the date of the commencement of these Rules.

(12) All licensee manufacturers shall be having tools and equipments in their production workshop as per TABLE F prescribed under Schedule VI-A. The existing licensed manufacturer shall comply with the prescribed provisions within a period of 12 months from the date of the commencement of these rules.

Provided that where any weight or measure is such that it cannot, or should not be moved from its location, the person using such weight or measure shall report to the Legal Metrology Officer at least thirty days in advance of the date on which the verification falls due.

(2) Where any weight or measure is such that it cannot, or should not, be moved from it's location, Legal Metrology Officer shall take necessary steps for the verification of such weight or measure at the place of its location.

(3) For the verification of weight or measure referred to in sub-rule (2) the user shall provide such facilities as may be specified by the Controller.

(4) Every weight or measure presented for verification shall be complete in itself.

(5) Every weight or measure shall be verified in a clean condition, and if necessary, the Legal Metrology Officer shall require the owner or user to make necessary arrangement for the purpose.

(6) A Legal Metrology Officer may visit, as frequently as possible during the period specified in rule 14, every premise within the local limits of his jurisdiction to inspect and test any weight or measure which is being or is intended or likely to be used in any transaction or for protection.

(7) The legal metrology officer shall obliterate the stamp on any weight or measure, if it is found during inspection that:-

(a) Any weight or measure which being due for re-verification has not been submitted for such re-verification.

(b) Any weight or measure which does not conform to the Standards established by or under the Act:

Provided that where the legal metrology officer is of opinion that the defect or error in such weight or measure is not such as to require immediate obliteration of the stamp, he shall inform

the user, of the defect or error found in the weight or measure and call upon user to remove the defect or error within such time, not exceeding eight days and shall-

(i) if user fails to remove the defect or error within that period, obliterate the stamp, or

(ii) if the defect or error is so removed as to make the weight or measure conform to the standards established by or under the Act, verify and stamp such weight or measure.

Explanation: The obliteration of the stamp on any weight or measure shall not take, away or abridge the power of the legal metrology officer to seize such weight or measure in accordance with the provisions of the Act.

16. **Stamping of weights or measures** – (1) The Legal Metrology Officer shall stamp every weight or measure, if after testing and verification, he is satisfied that such weight or measure conforms to the standards established by or under the Act, with a stamp of uniform design, issued by the Controller, which shall indicate the number allotted for administrative purpose to the Legal Metrology Officer by whom it is stamped:

Provided that if by reason of the size or nature of any weight or measure it is not desirable or practicable to put a stamp thereon, the Legal Metrology Officer shall take such action as may be directed by the Controller by a general or a special order in writing.

(2) The Legal Metrology Officer shall also mark the year and its quarter of stamping on every verified weight or measure except when the size or nature of such weight or measure makes it impracticable.

Explanation : A year shall be deemed to consist of four quarters of which first quarter shall be of the months of January, February and March which shall be marked as A; second quarter shall be of the months of April, May and June which shall be marked as B, third quarter shall be of the months of July, August and September which shall be marked as C and fourth quarter shall be of the months of October, November and December which shall be marked as D.

(3) On completion of verification and stamping the Legal Metrology Officer shall issue a non transferable certificate of verification in the form as prescribed in Schedule VIII.

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(4) Where a certificate of verification is lost or destroyed, the holder of the certificate of verification shall forthwith apply to the Legal Metrology Officer who had issued the certificate, for the issue of a duplicate certificate of verification. Every such application for the issue of a duplicate certificate shall be accompanied by a fee of rupees twenty five.

(5) On receipt of an application under sub-rule (4), the Legal Metrology Officer shall issue to the applicant a duplicate copy of the certificate of verification marked as 'DUPLICATE'.

17. **Fee for verification** - (1) Fees payable for verification and stamping of weight or measure at the office or camp office of the Legal Metrology Officer shall be as specified in Schedule IX.

(2) If, at the request of the user of weight or measure, verification is done at any premises other than the office or camp office of the Legal Metrology Officer, an additional fee shall be charged at half the rate as specified in the Schedule IX and the user of the weight or measure shall pay the expenses incurred by the Legal Metrology Officer for visiting the premises including the cost of transporting and handling the Working Standard and other equipment subject to a minimum of rupees one hundred.

Provided that no additional fee shall be charged for verification and stamping of weights and measures *in situ* of,-

(i) vehicle tanks for petroleum products and other liquids, Meter for Liquids Other than Water (Fuel Dispenser, Liquid Petroleum Gas, Milk Dispensers), Compressed Natural Gas Dispensers, Non-automatic Weighing Instruments like weighbridges, platform machines, crane scale, Automatic Gravimetric Filling Instruments, Automatic Rail-weighbridge, Discontinuous Totalizing Automatic Weighing Instruments, and such other weight or measure which cannot, and should not be moved from its location;

(ii) Weight or measure in the premises of manufacturer or dealer of such weight or measure.

(3) If a weight or measure is presented to the Legal Metrology Officer for re-verification after expiry of the validity of the stamp, an additional fee at half the rates specified in Schedule IX shall be payable for every quarter of the year or part thereof.

(4) Full fee shall be payable for re-stamping any weight or measure held in stock with manufacturer or dealer within the period specified, in rule 14 from the date on which it was last stamped, provided that the original stamp was not obliterated.

(5) A weight or measure which on verification is found to be incorrect shall be returned to the person concerned for adjustment informing him, in a proforma specified by the Controller, of the defects found in the weight or measure, and calling upon him to remove the defects within a period not exceeding seven days. When the necessary adjustment has been carried out, such weight or measure shall be verified on payment of the fees specified in Schedule IX and if found correct shall be stamped.

18. **Collection of fees and deposit into the Treasury** - (1) Before commencing the work of verification or re-verification, the Legal Metrology Officer shall inform the person concerned of the fees payable by him and shall receive the same in the manner as authorized by the Controller and issue a receipt in the standard prescribed form approved by the Controller, one copy of such receipt being kept on record:

Provided that fees payable by a department of the Central or State Government under these rules may be realized in such manner as may be directed by the Controller.

(2) The Legal Metrology Officer shall maintain a register, in the standard prescribed form approved by the Controller, which shall be written up from day-to-day and shall show the amount of fees and other charges collected during the day.

(3) All payment received by the Legal Metrology Officer during the week shall be paid into the Government Treasury under the appropriate "Head of Account" on such dates or days as may be specified by the Controller from time to time, and a receipt thereof be obtained and an intimation to that effect be sent to the Controller or other officer authorized by him in this behalf.

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19. **Disposal of seized weights, measures, etc.** - (1) Any un-verified weight or measure shall be returned to the person from whom such weight or measure was seized if that person gets the same verified and stamped, within fifteen days of the return, on payment of the prescribed fee including the additional fee payable for undertaking re-verification after the expiry of the validity of the stamp.

(2) Any weight or measure or document or thing or goods seized and detained under section 15 of the Act, which is to be the subject of proceedings in a court shall be produced by the legal metrology officer before the court shall after conclusion of the proceedings, be taken possession of by the legal metrology officer and dealt with in accordance with the orders of the court:

Provided that in the absence of the orders of the court, weight or measure or document or thing or goods shall be deal with as the controller may by special order direct and the material thereof shall be sold and the proceeds credited to the Government.

(3) Where the goods seized under sub-section (1) of section 15 of the Act are not subject to speedy or natural decay, the legal metrology officer may retain the package for the purpose of prosecution under this Act after giving the trader or his agent or the other person (who has committed the offence) a notice of such seizure.

(4) The goods referred under sub-rule (5) which are not to be the subject of proceedings in a court, shall after the expiry of sixty days of its seizure, be so dealt with as the Controller may by special order direct.

20. **Validity of weights or Measures duly stamped**- (1) A weight or measure which is, or is deemed to be, duly verified and stamped under these rules shall be deemed to conform to the standards established by or under the Act at every place within the State in which it is stamped unless it is found on inspection or verification that such weight or measure has ceased to conform to the standards established by or under the Act.

(2) No weight or measure which is, or is deemed to be, duly verified and stamped under this Act shall require to be re-stamped merely by reason of the fact that it is being used at any place within the State other than the place at which it was originally verified and stamped:

Provided that where a verified weight or measure, installed at one place is dismantled and re-installed at a different place, such weight or measure shall not be put into use unless it has been duly re-verified and stamped, notwithstanding that periodical re-verification of such weight or measure has not become due.

(3) Where a verified weight or measure has been repaired, whether by a licenced repaired or by the person owning and possessing the same, such weight or measure shall not be put into use unless it has been duly re-verified and stamped, notwithstanding that periodical re-verification of such weight or measure has not become due.

21. **Provision of supply of Working/Secondary Standards, equipment, etc. to the Legal Metrology Officer** – (1) Every Legal Metrology Officer shall be provided with Working /Secondary Standards weights, Working/Secondary Standard balances, and such other equipment includes weighing and measuring devices as may be approved by the Controller from time to time.

(2) Every Legal Metrology Officer shall be provided with such dies, punches, paper seal / sticker and such other equipment as may be necessary for affixing the verification stamp, the design and number of which are to be approved by the Controller.

(3) Every Legal Metrology Officer shall be provided with punches of suitable sizes of eight-pointed star as prescribed in Schedule XIV for obliterating stamps.

22. **Provisions relating to use of weight, measure, etc** – (1) Every person using a beam scale in any transactions in his premises shall suspend the same to a stand or to a chain by a hook:

Provided that this sub-rule shall not apply to itinerant vendors.

(2) Every weight or measure shall be used in a clean condition and in proper lighting arrangement

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(3) Any weight or measure, which has been verified and stamped *in situ*, shall not be dismantled and removed from its original site without prior intimation to the Controller or other person authorized by him in this behalf.

(4) To ensure a proper check of the accuracy of a weighing instrument the user shall keep at the site of each weighing instrument duly verified and stamped weights equal to one-tenth of the capacity of the instrument or one tonne whichever is less and consumer can also check the accuracy of the weighing instrument:

Provided that the Controller may specify the total number of verified and stamped weights to be maintained in trade premises where the number of weighing instruments are more than one.

(5) To ensure proper delivery of the petrol / diesel pumps, the retail dealer of the pump shall keep a verified 5 litre/10litre capacity measure in his premises and check the out put from the pump every day before put into use of dispensing pump to ensure its correct delivery. In case of any short delivery the dealer shall stop the delivery through the pump immediately and inform the legal metrology officer concerned to recalibrate the pump.

23. **Certificate of verification to be exhibited** – The person to whom a certificate of verification is issued shall exhibit the same in a conspicuous place in the premises where the weights, measures or weighing or measuring instruments to which the certificate relates are used:

Provided that in the case of itinerant vendor, the certificate shall be kept with the person:

Provided further that in the case of vehicle tank, the certificate of verification shall be kept with the vehicle.

24. **Penalty for contravention of rules** – Whoever contravenes any provision of these rules, for the contravention of which no punishment has been separately provided in the Act, shall be punished with fine, which may extend to five thousand rupees. Whenever rules are in conflict with the provisions of the Act, the Act will prevail the rules.

25. **Form of appeal** - (1) Every appeal under the Act and these rules shall be preferred in the form specified in Schedule X, and shall be accompanied by a copy of the order appealed against.

(2) An application for appeal to State Government shall be accompanied by fee of Rs. 500 and for appeal to Controller shall be accompanied by fee of Rs. 200 paid either by cash or by affixing court fee stamp for the said value as the case may be.

26. Fee for compounding of offences- The fee for compounding of offences committed under the Act shall be as prescribed in Schedule XI.

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SCHEDULE I

(See rule 10)

Exceptions referred to in **Rule 10**

1- The following commodities may be sold by weight, measure or number as show against the commodity.

TABLE

Sr. No.	Commodity	Whether declaration to be expressed in terms of weight, measure or number or two or more of them.
(1)	(2)	(3)
1.	Aerosol products	weight
2.	Acids in liquid form	weight or Volume
3.	Compressed or liquefied gas (but not liquefied petroleum gas	weight and equivalent volume at stated temperature and pressure
4.	Butter (incl. peanut butter), cheese, curd, ghee	weight
5.	Electric cables	length or weight
6.	Electric wire	length or weight
7.	Fencing wire	length or weight
8.	Hair oil, un perfumed	weight or volume
9.	Fruits and vegetables	number or weight
10.	Furnace oil	weight or volume
11.	Linseed oil and other vegetable oils	weight or volume
12.	Heavy residual fuel oil	weight
13.	Industrial diesel fuel	volume
14.	Honey, malt extract, golden syrup treacle	weight
15.	Ice cream and other similar frozen products	weight
16.	Liquid chemicals	weight or volume
17.	Liquid petroleum gas	weight
18.	Nails, wood screws	number or weight
19.	Paint (other than paste paints or solid paint), varnish and varnish stairs, enamels	volume
20.	Papad	number and weight
21.	Paste paint, solid paint	weight
22.	Ressogulla, Gulabjamun and other sweet preparations	weight
23.	Ready made garments	number and size
24.	Sauce, all kinds	weight
25.	Tyres and tubes	number
26.	Yarn	Weight or length of yarn

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SCHEDULE II A

(See rule 11(1))

FORM LM-1

[Application form for licence as manufacturer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator	Person who gave test of WM manufacturing

Mark (✓) wherever applicable

1. Name of the Manufacturing concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application
Surname..... Name..... Father/ Husband's Name

2(c) Complete residential address of the applicant :
House No..... Street / Society :
City Ta Dist.....
Tel No.....Mobile No..... Email.....

3(a) Complete address of the workshop :

House / Factory No..... Locality.....

City Ta Dist.....

3(b) Whether workshop premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐
dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not	
(a)	Shop Act Reg. No.	☐	☐	Yes ☐	No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐	No ☐
(c)	State VAT No. :	☐	☐	Yes ☐	No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐	No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐	No ☐

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Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date ,(dd mm yyyy)	Sex (M/F)	Designation∆	Joining Date ∆	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8
1. = illiterate.
2. = Studied upto Std. 7
3. =SSC fail
4. = Studied upto Std. 11
5. = HSC Pass
6. = Certificate Diploma after Std. 10/12
7. = Graduate / Post Graduate (Arts/Science/Commerce)
8. = B.E. / B.Tech / MBA / LLB / LLM

Code for column No.7

1.= Agriculture
2.= Business / Trading / Profession
3.= Industry
4.= Skilled worker
5.= Service in Govt. / Private Organised Sector
6.= Service in unorganised sector (e.g. Small private firm)
7.= Others

$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable.

∆ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society

All the information furnished above is true to the best of my / our knowledge.

.....
Name and Signature
of applicant

5(a) Type of Weights and Measures to be manufactured

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6(a) No.of persons employed / proposed to be employed

(1) Skilled... (2) Semiskilled ... (3) Unskilled... (4) Specially trained...

6(b) Whether details of above attached in Annexure-2 or not ? Yes ☐ No ☐

7. Tentative date for presenting the model manufacturer ☐ / / ☐

dd / mm/ yyyy

8. Whether model approval certificate attached or not ? Yes ☐ No ☐

9. Whether details of machinery, tools, accessories attached in Annexure-3 or not ? Yes ☐ No ☐

10. Whether details of steel casting / hardness testing / foundry facility attached in Annexure-4 or not ? Yes ☐ No ☐

11. Whether details of weights and measures in the possession of the applicant on the date of application attached in Annexure-5 or not ? Yes ☐ No ☐

12. Did the applicant make any such application previously ? Yes ☐ No ☐

13. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act/Rules in the past ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :
Date :

.....
Signature and name

Note : The details of above Sr. No. 5 to 11 shall be attached in the enclosed annexure-1 to 5 alongwith the remarks of the Inspecting Officer.

ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES TO BE MANUFACTURED)

Sr. No.	Code of Weights, Measures (1=weights, 2=measures, 3= weighing instruments, 4=measuring instruments)	Type, Capacity and class as applicable	Remarks of the Inspecting Officer

ANNEXURE-2 (DETAILS OF EMPLOYEES)

Sr. No.	Category code (1=skilled, 2=semiskilled, 3=unskilled, 4=specially trained)	Name	Date of joining	Birth Date	Educational Qualification	Designation	Monthly Salary Rs.	EPF No.	Remarks of Inspecting officer

ANNEXURE-3 (DETAILS OF MACHINERY, TOOLS, ACCESSORIES)

Sr. No.	Details of machinery/ tools/ accessories	Nos.	Remarks of the Inspecting Officer	Sr. No.	Details of machinery/ tools/ accessories	Nos.	Remarks of the Inspecting Officer
1	Portable drill machine			14	Screw driver set		
2	Bench type drill machine			15	Allen key Set		
3	Welding machine			16	Drill machine spanner set		
4	Portable disc grinder			17	Flat and round file		
5	Bench grinder			18	Bullion weights (2kg to 1 mg)		
6	Gas cutting set with PUG machine			19	CI weights (20 kg to 50 g)		
7	Magnet drill for weighbridge			20	Hammer set		
8	Digital multimeter			21	Cutter		
9	Soldering iron			22	Spanner set		
10	Desoldering gun			23	Square lid seal and seal wire		
11	Soldering wire			24	5 Ton O.H.crane for weighbridge		
12	Number punch and ABCD punch set			25	Testing weights (1/4th max. capacity for weighbridge)		
13	Nose plier			26	Other tools if any		

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ANNEXURE-4 (DETAILS OF STEEL CASTING / HARDNESS TESTING / FOUNDRY FACILITY)

Sr. No.	Details of machinery	Nos.	Remarks of the inspecting officer

ANNEXURE-5 (DETAILS OF WEIGHTS, MEASURES IN POSSESSION OF THE APPLICANT)

Sr. No.	Code of Weights, Measures (1=weights, 2=measures, 3= weighing instruments, 4=measuring instruments)	Type, Capacity and class as applicable	Nos.	Remarks of Inspecting officer

SCHEDULE II A

(See rule 11(1))

FORM LR-1

[Application form for licence as Repairer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator	Person who gave test of WM repairing

Mark (✓) wherever applicable

1. Name of the Repairing concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application
Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :
House No..... Street / Society :
City Ta Dist.....
Tel No.....Mobile No..... Email.....

3(a) Complete address of the workshop :

House / Factory No..... Locality.....

City Ta Dist.....

3(b) Whether workshop premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐ dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not
(a)	Shop Act Reg. No.	☐	☐	Yes ☐ No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐ No ☐
(c)	State VAT No. :	☐	☐	Yes ☐ No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐ No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐ No ☐

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Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date ,(dd mm yyyy)	Sex (M/F)	DesignationΔ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable. Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society
9. = illiterate. 10. = Studied upto Std. 7 11. =SSC fail 12. = Studied upto Std. 11 13. = HSC Pass 14. = Certificate Diploma after Std. 10/12 15. = Graduate / Post Graduate (Arts/Science/Commerce) 16. = B.E. / B.Tech / MBA / LLB / LLM	8.= Agriculture 9.= Business / Trading / Profession 10. = Industry 11. = Skilled worker 12. = Service in Govt. / Private Organised Sector 13. = Service in unorganised sector (e.g. Small private firm) 14. = Others	

All the information furnished above is true to the best of my / our knowledge.

.....
Name and Signature
of applicant

5(a) Type of Weights and Measures to be repaired
Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6(a) No.of persons employed / proposed to be employed
(1) Skilled..... (2) Semiskilled..... (3) Unskilled..... (4) Specially trained.....

6(b) Whether details of above attached in Annexure-2 or not ? Yes ☐ No ☐

7. Whether details of machinery, tools, accessories attached in Annexure-3 or not ? Yes ☐ No ☐

8. Whether details of weights and measures in the possession of the applicant on the date of application attached in Annexure-4 or not ? Yes ☐ No ☐

9. Did the applicant make any such application previously ? Yes ☐ No ☐

10. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act / Rules in the past ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :
Date :

.....
Signature and name

Note :
The details of above Sr. No. 5 to 8 shall be attached in the enclosed annexure-1 to 4 alongwith the remarks of the Inspecting Officer.

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ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES TO BE REPAIRED)

Sr. No.	Code of Weights, Measures (1=weights, 2=measures, 3= weighing instruments, 4=measuring instruments)	Type, Capacity and class as applicable	Remarks of the Inspecting Officer

ANNEXURE-2 (DETAILS OF EMPLOYEES)

Sr. No.	Category code (1=skilled, 2=semiskilled, 3=unskilled, 4=specially trained)	Name	Date of joining	Birth Date	Educational Qualification	Designation	Monthly Salary Rs.	EPF No.	Remarks of Inspecting officer

ANNEXURE-3 (DETAILS OF MACHINERY, TOOLS, ACCESSORIES)

Sr. No.	Details of machinery/ tools/ accessories	Nos.	Remarks of the Inspecting Officer

Note :

(1) The equipments and machineries required for repairing mechanical weighing instruments shall be as per **TABLE-A** of **Schedule VI A, under rule 11.**

(2) The equipments and machineries required for repairing electronic weighing instruments shall be as per **TABLE-B** of **Schedule VI A, under rule 11.**

(3) All licensee repairers shall be required to keep **loan sets** as per **TABLE-C** of Schedule VI A under rule 11 for repairing of mechanical weighing instruments.

(4) All licensee repairers shall be required to keep **loan sets** as per **TABLE-D** of Schedule VI A under rule 11 for repairing of electronic weighing instruments.

(5) All licensee repairers shall be required to keep **test weights and measures** as per **TABLE-E** of Schedule VI A under rule 11.

ANNEXURE-4 (DETAILS OF WEIGHTS, MEASURES IN POSSESSION OF THE APPLICANT)

Sr. No.	Code of Weights, Measures (1=weights, 2=measures, 3= weighing instruments, 4=measuring instruments)	Type, Capacity and class as applicable	Nos.	Remarks of Inspecting officer

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SCHEDULE II A

(See rule 11(1))

FORM LD-1

[Application form for licence as Dealer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator

Mark (✓) wherever applicable

1. Name of the concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application
Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :
House No..... Street / Society :
City Ta Dist.....
Tel No.....Mobile No..... Email.....

3(a) Complete address of the Office :

Shop No..... Locality.....

City Ta Dist.....

3(b) Whether Office premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐
dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not
(a)	Shop Act Reg. No.	☐	☐	Yes ☐ No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐ No ☐
(c)	State VAT No. :	☐	☐	Yes ☐ No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐ No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐ No ☐

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Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date ,(dd mm yyyy)	Sex (M/F)	DesignationΔ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners /-Directors-/-Members-are-to-be-provided at Sr. No.2 to Sr. No.8 as applicable. Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society
17. = illiterate. 18. = Studied upto Std. 7 19. =SSC fail 20. = Studied upto Std. 11 21. = HSC Pass 22. = Certificate Diploma after Std. 10/12 23. = Graduate / Post Graduate (Arts/Science/Commerce) 24. = B.E. / B.Tech / MBA / LLB / LLM	15. = Agriculture 16. = Business / Trading / Profession 17. = Industry 18. = Skilled worker 19. = Service in Govt. / Private Organised Sector 20. = Service in unorganised sector (e.g. Small private firm) 21. = Others	

All the information furnished above is true to the best of my / our knowledge.

.....

Name and Signature
of applicant

5(a) Type of Weights and Measures to be sold
Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6(a) No.of persons employed / proposed to be employed

(1) Skilled..... (2) Semiskilled (3) Unskilled..... (4) Specially trained.....

6(b) Whether details of above attached in Annexure-2 or not ? Yes ☐ No ☐

7(a) Whether the applicant / firm intends to import weight / measure from places outside the State / Country Yes ☐ No ☐

7(b) If yes,

i)Name of manufacturer of other State / Country

ii)Licence No. of the manufacturer

iii)Importer registration of weight, measure if applicable.....

iv)Model approval certificate No..... (copies shall be attached)

8. Did the applicant make any such application previously ? Yes ☐ No ☐

9. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act / Rules in the past ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :
Date :

.....
Signature and name

Note :
The details of above Sr. No. 5 and 6 shall be attached in the enclosed annexure-1 and 2 alongwith the remarks of the Inspecting Officer.

INDEX

ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES TO BE SOLD)

Sr. No.	Code of Weights, Measures (1=weights, 2=measures, 3= weighing instruments, 4=measuring instruments)	Type, Capacity and class as applicable	Remarks

ANNEXURE-2 (DETAILS OF EMPLOYEES)

Sr. No.	Category code (1=skilled, 2=semiskilled, 3=unskilled, 4=specially trained)	Name	Date of joining	Birth Date	Educational Qualification	Designation	Monthly Salary Rs.	EPF No.	Remarks of Inspecting officer

SCHEDULE II B

(See rule 11(2))

FORM LM-2

[Application form for renewal of licence as manufacturer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator	Person who gave test of WM manufacturing

Mark (✓) wherever applicable

1. Name of the Manufacturing concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application

Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :

House No..... Street / Society :

City Ta Dist.....

Tel No.....Mobile No..... Email.....

3(a) Complete address of the workshop :

House / Factory No..... Locality.....

City Ta Dist.....

3(b) Whether workshop premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐ dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not
(a)	Shop Act Reg. No.	☐	☐	Yes ☐ No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐ No ☐
(c)	State VAT No. :	☐	☐	Yes ☐ No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐ No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐ No ☐

(Note : Details in Serial No.4(a) to 4(e) are to be provided only if there is a change in any previous registration)

INDEX

Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date ,(dd mm yyyy)	Sex (M/F)	DesignationΔ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable. Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society.
25. = illiterate. 26. =Studied upto Std. 7 27. =SSC fail 28. = Studied upto Std. 11 29. = HSC Pass 30. = Certificate Diploma after Std. 10/12 31. = Graduate / Post Graduate (Arts/Science/Commerce) 32. = B.E. / B.Tech / MBA / LLB / LLM	22. =Agriculture 23. =Business / Trading / Profession 24. =Industry 25. =Skilled worker 26. =Service in Govt. / Private Organised Sector 27. =Service in unorganised sector (e.g. Small private firm) 28. =Others	

All the information furnished above is true to the best of my / our knowledge.

.....

Name and Signature
of applicant

5(a) Type of weights and measures manufactured during the last 12 months
Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6. Do you propose any change in the above
Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

7. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act / Rules in the past five years ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :
Date :

.....
Signature and name

Note :
The details of above Sr. No. 5 shall be attached in the enclosed Annexure-1 alongwith the remarks of the Inspecting Officer.

INDEX

ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES MANUFACTURED DURING THE LAST 12 MONTHS)

STOCK STATEMENT

Sr. No.	Opening Stock	Quantity manufactured during the month	Total (2+3)	Quantity sold during the month	Closing stock (4-5)
1	2	3	4	5	6

TRANSACTION STATEMENT

Sr. No.	Des-patch vou-cher no. & date	Type of Weight / Measure	Quan-tity	Sold inside or outside State (I / O)	Category of purchaser Dealer / Trader (D /	Details of Dealer			Details of trader			
						Licence No.	Name	Address	Name	Address	EPIC No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12	13

Note :

1. In column 5 - Letter **"I"** stands for Inside State and Letter **"O"** stands for Outside State.
2. In column 6 - Letter **"D"** stands for Dealer and letter **"T"** stands for Trader.
3. Only the letters **I / O** and **D / T** are to be mentioned the prescribed columns.

SCHEDULE II B

(See rule 11(2))

FORM LR-2

[Application form for renewal of licence as repairer of weights and measures under the Legal Metrology Act, 2009]

PHOTO	PHOTO	PHOTO
Owner /Partner/ Director/Chairman	Manager/Administrator	Person who gave test of WM repairing

Mark (✓) wherever applicable

1. Name of the repairing concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application

Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :

House No..... Street / Society :

City Ta Dist.....

Tel No.....Mobile No..... Email.....

3(a) Complete address of the workshop :

Shop / Factory No.....Locality.....

City Ta Dist.....

3(b) Whether workshop premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐ dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not
(a)	Shop Act Reg. No.	☐	☐	Yes ☐ No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐ No ☐
(c)	State VAT No. :	☐	☐	Yes ☐ No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐ No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐ No ☐

(Note : Details in Serial No.4(a) to 4(e) are to be provided only if there is a change in any previous registration)

INDEX

Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date (dd mm yyyy)	Sex (M/F)	Designation Δ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable.
33. = illiterate. 34. = Studied upto Std. 7 35. =SSC fail 36. = Studied upto Std. 11 37. = HSC Pass 38. = Certificate Diploma after Std. 10/12 39. = Graduate / Post Graduate (Arts/Science/Commerce) 40. = B.E. / B.Tech / MBA / LLB / LLM	29. = Agriculture 30. = Business / Trading / Profession 31. = Industry 32. = Skilled worker 33. = Service in Govt. / Private Organised Sector 34. = Service in unorganised sector (e.g. Small private firm) 35. = Others	Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society

All the information furnished above is true to the best of my / our knowledge.

.....
Name and Signature
of applicant

5(a) Type of weights and measures repaired during the last 12 months

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6. Do you propose any change in the above

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

7. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act / Rules in the past five years ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued thereunder.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :
Date :

.....
Signature and name

Note :
The details of above Sr. No. 5 shall be attached in the enclosed Annexure-1 alongwith the remarks of the Inspecting Officer.

INDEX

ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES REPAIRED DURING THE LAST 12 MONTHS)

REPAIRER RETURN

Sr. No.	Date	Details of user				Last Verifi-cation Certi-ficate No. and Date	Details of weights / measures / instruments		Rece-ipt No. and date of issue to the user	Bill No.	Veri-fication certi-ficate No. and date	Remarks
		Name	Add- ress	Elec-tion card No.	Ration Card No.		Weights / measures / instru-ments (codes only)	Nos.				
1	2	3	4	5	6	7	8	9	10	11	12	13

SCHEDULE II B

(See rule 11(2))

FORM LD-2

[Application form for renewal of licence as dealer of weights and measures under the Legal Metrology Act, 2009]

PHOTO

Owner /Partner/ Director/Chairman

PHOTO

Manager/Administrator

Mark (✓) wherever applicable

1. Name of the concern

2(a) Nature of the firm :

Individual ☐ Partnership ☐ Company ☐ Co-op. Soc. ☐

2(b) Details of the individual making the application

Surname..... Name..... Father/ Husband's Name :.....

2(c) Complete residential address of the applicant :

House No..... Street / Society :

City Ta Dist.....

Tel No.....Mobile No..... Email.....

3(a) Complete address of the Office :

Shop No..... Locality.....

City Ta Dist.....

3(b) Whether shop premises are : Owned ☐ Rented ☐

3(c) Firm commencement date : ☐ dd / mm/ yyyy

3(d) Availability of electric energy : Connection No.: ☐ Contracted load : ☐

4. Details of various registrations :

			dd / mm / yyyy	Whether Reg. certificate attached or not
(a)	Shop Act Reg. No.	☐	☐	Yes ☐ No ☐
(b)	I.T. PAN No.	☐	☐	Yes ☐ No ☐
(c)	State VAT No. :	☐	☐	Yes ☐ No ☐
(d)	Central VAT No. :	☐	☐	Yes ☐ No ☐
(e)	Prof.Tax. No.	☐	☐	Yes ☐ No ☐

(Note : Details in Serial No.4(a) to 4(e) are to be provided only if there is a change in any previous registration)

INDEX

Sr. No. $	Name (Surname/ Name / Father - Husband's Name)	Birth Date ,(dd mm yyyy)	Sex (M/F)	DesignationΔ	Joining Date Δ	Service / Profession #	Edu. Qualification*	Annual Income	Election poto identity card no. (EPIC No.)	Driving Licence No.	Ration Card No.
1	2	3	4	5	6	7	8	9	10	11	12
1											
Details of Partners / Directors / Members as applicable											
2											
3											
4											
5											
6											
7											
8											

* Code for column No.8	# Code for column No.7	$ Details of the applicant are to be provided at Sr.No. Details of Partners / Directors / Members are to be provided at Sr. No.2 to Sr. No.8 as applicable. Δ Column No.5 and Column No.6 will apply to Partnership firm / Company / Co-operative Society
41. = illiterate. 42. = Studied upto Std. 7 43. =SSC fail 44. = Studied upto Std. 11 45. = HSC Pass 46. = Certificate Diploma after Std. 10/12 47. = Graduate / Post Graduate (Arts/Science/Commerce) 48. = B.E. / B.Tech / MBA / LLB / LLM	36. = Agriculture 37. = Business / Trading / Profession 38. = Industry 39. = Skilled worker 40. = Service in Govt. / Private Organised Sector 41. = Service in unorganised sector (e.g. Small private firm) 42. = Others	

All the information furnished above is true to the best of my / our knowledge.

.....

Name and Signature
of applicant

5(a) Type of weights and measures sold during the last 12 months

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

5(b) Whether details of above attached in Annexure-1 or not ? Yes ☐ No ☐

6. Do you propose any change in the above

Weights ☐ Measures ☐ Weighing instruments ☐ Measuring instruments ☐

7. Has the applicant been convicted for any offence / paid any compounding fee relating to Legal Metrology Act/Rules in the past five years ? Yes ☐ No ☐

To be certified by the applicant(s)

Certified that I/We have read the Legal Metrology Act, 2009 and the Gujarat Legal Metrology (Enforcement) Rules, 2011 and agree to abide by the same and also the administrative orders and instructions issued or to be issued there under.

I/We agree to deposit the scheduled licence fees with Government as soon as required to do so by the Licensing Authority.

All the information furnished above is true to the best of my / our knowledge.

Place :
Date :

.....
Signature and name

Note :
The details of above Sr. No. 5 shall be attached in the enclosed Annexure-1 alongwith the remarks of the Inspecting Officer.

INDEX

ANNEXURE-1 (DETAILS OF WEIGHTS, MEASURES SOLD DURING THE LAST 12 MONTHS)

STOCK STATEMENT

Sr. No.	Opening Stock	Quantity sold during the month	Closing stock (2-3)
1	2	3	4

TRANSACTION STATEMENT

Sr. No.	Des-patch vou-cher no. & date	Type of Weight / Measure	Quan-tity	Sold inside or outside State (I / O)	Category of purchaser Dealer / Trader (D / T)	Details of Dealer			Details of trader				
						Licence No.	Name	Address	Name	Address	EPIC No.	Ration Card No.	
1	2	3	4	5	6	7	8	9	10	11	12	13	

Note :

1. In column 5 - Letter **"I"** stands for Inside State and Letter **"O"** stands for Outside State.

2. In column 6 - Letter **"D"** stands for Dealer and letter **"T"** stands for Trader.

3. Only the letters **I / O** and **D / T** are to be mentioned the prescribed columns.

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SCHEDULE III

(See rule 11 (3))

Licensing Forms

FORM LM-3

PHOTO

OFFICE OF THE CONTROLLER OF LEGAL METROLOGY,

GUJARAT STATE

Licence to manufacture weights, measures, weighing or measuring instruments.

Licence No..... Year

1. The Controller of Legal metrology hereby grants to
(Name and address of party or parties) a licence to manufacture the following:-
(Include details of the weights, measures, weighting instruments or measuring instruments that are licenced to be manufactured by the party).

Weights	Measures	Weighing Instruments	Measuring instruments

2. The licence is valid for the party named above in respect of his workshop located at
3. Address of the office if different than workshop address :
.....
4. This licence is valid from to
5. Details of employees

Sr. No.	Name of Employee	Joining Date	Birth date	Education Qualification	Designation	Monthly Salary	EPF No.	Remarks
1	2	3	4	5	6	7	8	9

6. The manufacturer shall comply with the conditions noted below. If he fails to comply with anyone of these, his licence is liable to be cancelled.
7. The trade mark monogram being used by the manufacturer is as under.

.....

(Signature)

Controller of legal Metrology

Gujarat State

(Seal)

Date

Place

Note : In the case of firm, its name with the names of all names of all persons having interest in the business should be given in paragraph 1.

INDEX

CONDITIONS OF LICENCE

1. The person in whose favour this licence is issued shall. -

(a) Comply with all the relevant provisions of the Act and Rules for the time being in force;

(b) Not encourage or countenance any infringement of the provisions of the Act. or the Rules amended from time to time;

(c) Exhibit this licence in some conspicuous part of the premises to which it relates;

(d) Comply with any general or special directions that may be given by the Controller of legal metrology;

(e) Surrender the licence in the event of closure of business and/ or cancellation of Licence;

(f) Present the weights, measures, weighing or measuring instruments as the case may be manufactured and meant for use within the State, to the legal metrology officer for verification and stamping before sale;

(g) Submit the application for renewal of this licence as required under the rules within thirty days of expiry of the validity of the licence.

(h) Shall be having tools and equipments in their production workshop as prescribed.

2. Every condition prescribed after the issue of this licence shall if notified in the Official Gazette, be binding on the persons to whom the licence has been granted.

Renewal entries

Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology

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SCHEDULE III

(See rule 11 (3))

Licensing Forms

FORM LR-3

PHOTO

OFFICE OF THE CONTROLLER OF LEGAL METROLOGY,

GUJARAT STATE

Licence to repair weights, measures, weighing or measuring instruments.

Licence No..... Year

1. The Controller of Legal metrology hereby grants to

(Name and address of party or parties) a licence to repair the following:-

(Include details of the weights, measures, weighting instruments or measuring instruments that are licenced to be repaired by the party).

Weights	Measures	Weighing Instruments	Measuring instruments

2. The licence is valid for the party named above in respect of his workshop located at

3. Address of the office if different than workshop address :

.....

4. This licence is valid from to

5. Details of employees

Sr. No.	Name of Employee	Joining Date	Birth date	Education Qualification	Designation	Monthly Salary	EPF No.	Remarks
1	2	3	4	5	6	7	8	9

6. The repairer shall comply with the conditions noted below. If he fails to comply with anyone of these, his licence is liable to be cancelled.

.....

(Signature)

Controller of legal Metrology

Gujarat State

(Seal)

Date

Place

Note: In the case of firm, its name with the names of all names of all persons having interest in the business should be given in paragraph 1.

INDEX

CONDITIONS OF LICENCE

1. The person in whose favour this licence is issued shall. -

 (a) Comply with all the relevant provisions of the Act and Rules for the time being in force; and shall meet the basic minimum requirements for licensee repairers as prescribed.

 (b) Not encourage or countenance any infringement of the provisions of the Act. or the Rules amended from time to time;

 (c) Exhibit this licence in some conspicuous part of the premises to which it relates;

 (d) Comply with any general or special directions that may be given by the Controller of legal metrology;

 (e) Surrender the licence in the event of closure of business and/ or cancellation of Licence;

 (f) Present the weights, measures, weighing or measuring instruments as the case may be duly repaired to the Legal Metrology Officer for undertaking verification and stamping as specified in rule 14 before delivery to the user.

 (g) Submit the application for renewal of this licence as required under the rules within thirty days of expiry of the validity of the licence.

2. Every condition prescribed after the issue of this licence shall if notified in the Official Gazette, be binding on the persons to whom the licence has been granted.

Renewal entries

Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology

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SCHEDULE III

(See rule 11 (3))

Licensing Forms

FORM LD-3

PHOTO

OFFICE OF THE CONTROLLER OF LEGAL METROLOGY,

GUJARAT STATE

Licence to a dealer in weights, measures, weighing or measuring instruments.

Licence No..... Year

1. The Controller of Legal metrology hereby grants to

(Name and address of party or parties) a licence to deal in the following:-

(Include details of the weights, measures, weighting instruments or measuring instruments).

Weights	Measures	Weighing Instruments	Measuring instruments

2. The licence is valid for the party named above in respect of his premises located at

3. Address of branch office if any:

.....

4. This licence is valid from to

5. Details of employees

Sr. No.	Name of Employee	Joining Date	Birth date	Education Qualification	Designation	Monthly Salary	EPF No.	Remarks
1	2	3	4	5	6	7	8	9

6. The dealer shall comply with the conditions noted below. If he fails to comply with anyone of these, his licence is liable to be cancelled.

.....

(Signature)

Controller of legal Metrology

Gujarat State

(Seal)

Date

Place

Note: In the case of firm, its name with the names of all names of all persons having interest in the business should be given in paragraph 1.

INDEX

CONDITIONS OF LICENCE

1. The person in whose favour this licence is issued shall. -

(a) Comply with all the relevant provisions of the Act and Rules for the time being in force;

(b) Not encourage or countenance any infringement of the provisions of the Act. or the Rules amended from time to time;

(c) Exhibit this licence in some conspicuous part of the premises to which it relates;

(d) Comply with any general or special directions that may be given by the Controller of legal metrology;

(e) Surrender the licence in the event of closure of business and/ or cancellation of Licence;

(f) Present the weights, measures, weighing or measuring instruments as the case may be manufactured and meant for use within the State, to the legal metrology officer for verification and stamping before sale;

(g) Submit the application for renewal of this licence as required under the rules within thirty days of expiry of the validity of the licence.

2. Every condition prescribed after the issue of this licence shall if notified in the Official Gazette, be binding on the persons to whom the licence has been granted.

Renewal entries

Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology
Current No..... Date Renewed for Seal Controller of Legal Metrology	Current No..... Date Renewed for Seal Controller of Legal Metrology

INDEX

SCHEDULE IV

(See rule 11 (4) and 11 (5))

Office of Controller of Legal Metrology, Gujarat State

Licencing and renewal fees for manufacturers of, or repairers of, or dealers in weights and measures

Issue of licence / renewal of licence to:	Fee per year
(i) Manufacturers	Rs. 500/-
(ii) Repairers	Rs. 100/-
(iii) Dealers	Rs. 100/-

SCHEDULE V

(See rule 11 (6))

Office of Controller of Legal Metrology, Gujarat State

Register of licenced Manufacturers/ Repairers/ Dealers of weights, measures, weighing / measuring instruments

Office of the

Licence Number	Photograph of responsible person	Date of issue/ renewal	Name and complete address of the manufacturer	Place where workshop/ factory is situated	Articles to be manufactured/ repaired/ sold	Trade mark/ monogram being used	Orders regarding cancellation of licence	Result of appeal	Details of licences held in any other state and since	Details of prosecution cases if any against the licence holder	Signature of competent authority	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13

Note: Column (5) does not apply to dealers; column (7) does not apply to repairers and dealers.

INDEX

SCHEDULE VI

See rule 11(8)

Office of Controller of Legal Metrology, Gujarat State

Security deposit to be made by licencee repairer

Repairer of weights and measures including weighing and measuring instruments.	Rs. 5000.00

SCHEDULE VI A

(See rule 11(11))

BASIC MINIMUM REQUIREMENTS FOR LICENCE HOLDERS

1) The workshop of the repairer shall not be in a residential premises.

2) The workshop should be having minimum 50 sq.m. areas and shall be **preferably** located on the ground floor or the basement. However, workshop will be permitted above ground floor if lift is provided in working condition in the building. The present licensee repairers shall comply with this provision within a time frame of 12 months from the date of notification of this Rules.

3) Minimum experience required :

The owner / partner in the repairer licence for repairing **electronic balance class-III and class-IV** (load cell based technology) may be a diploma holder in Electronic / Electrical / Instrumentation Engineering in a government recognized institute. The skilled workers employed by him shall be holding Government recognized ITI electronic / electrical / instrumentation trade certificate.

The owner / partner in the repairer licence for repairing **electronic balance class-I and class-II** (magnet based technology) may be a diploma holder in Electronic / Electrical / Instrumentation Engineering in a government recognized institute. The skilled workers employed by him shall be holding Government recognized ITI electronic / electrical / instrumentation trade certificate. Also skilled workers having experience of more than 1 year as Service Engineer / Service Technician in the manufacturing company of such magnet based electronic balances will be preferable. However, in case the owner/partner does not have the prescribe dqualifications, an employee having such qualifications may be employed.

4) All skilled workers of the licence holder will be issued a photo ID by the licence holder and hotographs will also be affixed in the licence itself. Only such authorised skilled workers can present the weights and measures to the concerned Legal Metrology Officer for verification and stamping.

5(a) The equipments and machineries required for repairing mechanical weighing instruments shall be as per **TABLE-A**

5(b) The equipments and machineries required for repairing electronic weighing instruments shall be as per **TABLE-B**

5(c) All licencee repairers shall be required to keep loan sets as per **TABLE-C** for repairing of mechanical weighing instruments.

5(d) All licencee repairers shall be required to keep loan sets as per **TABLE-D** for repairing of electronic weighing instruments.

5(e) All licencee repairers shall be required to keep test weights and measures as per **TABLE-E.**

5(f) All licencee **manufacturers** shall be required to keep tools and accessories as per **TABLE-F** in their production workshop.

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TABLE-A

LIST OF EQUIPMENTS AND MACHINERIES REQUIRED FOR REPAIRING MECHANICAL WEIGHING INSTRUMENTS

SR. NO.	PARTICULARS	SIZE	NOS. – SET
1	VISE	75 mm 100 mm	1 no. 1 no.
2	SCISSOR	75 mm 100 mm	1 no. 1 no.
3	SPANNER SET	4 to 12 mm	1 no.
4	PLIER	38 mm	1 no.
5	FIX PLIER	Medium	1 no.
6	ROUND FILE	5 mm 12 mm	1 no. 1 no.
7	HALF ROUND FILE	5 mm 12 mm	1 no. 1 no.
8	FLAT FILE	4 mm 12 mm	1 no. 1 no.
9	DISMISS (SCREW DRIVER)		1 set
10	BLOW STOVE		1 No.
11	FLAT PUNCH	10 to 38 mm	1 set 7 no.
12	ROUND PUNCH	For 1 kg to 20 gram and for bullion weight and scale	1 set 7 no.
13	RECTANGULAR PUNCH	For 5 kg to 50 kilogram	1 set 4 nos.
14	NUMBER PUNCH – ENGLISH	0 to 9	1 set t9 nos.
15	HINDI TYPE	For Kilogram and for series of gram	1 no. each
16	MELTING POT FOR MELTING OF LEAD	Medium	1 No.
17	HACKSAW WITH BLADE	300 mm	1 No.
18	EMERY STONE	300 mm	1 No.
19	WIRE BRUSH		2 No.
20	ENGLISH LETTERS (A,B,C,D, TYPE SET) PUNCH SET	A to Z CAPITAL a to z SMALL	1 set 1 set
21	HAND DRILL WITH SPANNER		1 No.
22	HAMMERS	500 gram, 200 gram, 100 gram, 50 gram	4 Nos.
23	LADLE		1 No.
24	JACK FOR WEIGHBRIDGE PLATFORM		1 No.

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TABLE-B

LIST OF EQUIPMENTS AND MACHINERIES REQUIRED FOR REPAIRING ELECTRONIC WEIGHING INSTRUMENTS

(1) DIGITAL MULTI METER

(2) SOLDERING IRON

(3) DESOLDERING GUN

(4) SOLDERING WIRE

(5) NUMBER PUNCH SET – 0 to 9

(6) NOSE PLIER AND PLIER

(7) SCREW DRIVER SET

(8) ALLEN KEY

(9) DRILL MACHINE

(10) FLAT AND ROUND FILE SET

(11) BULLION WEIGHT – BULLION FROM 1 KILOGRAM to 1 MILLIGRAM

(12) C.I. WEIGHTS – 20 KILOGRAM, 10 KILOGRAM, 5 KILOGRAM, 2 KILOGRAM to 500 GRAM

(13) HAMMER SET

(14) CUTTER

(15) SPANNER SET

(16) LEAD SEAL (SQUARE)

(17) SEAL WIRE

(18) ABCD TYPE SET (CAPITAL SET-1, SMALL SET-1) PUNCHES

INDEX

TABLE-C

LIST OF EQUIPMENTS FOR ALL LICENSED REPAIRERS SHALL BE REQUIRED TO KEEP LOAN SETS FOR REPAIRING OF MECHANICAL WEIGHING INSTRUMENTS.

(a) LICENCE FOR GUJARAT STATE

(1)	SCALE – C CLASS	100 KILOGRAM	1 NO
		50 KILOGRAM	1 NO.
		20 KILOGRAM	1 NO.
		10 KILOGRAM	1 NO.
		5 KILOGRAM	3 NOS.
		2 KILOGRAM	4 NOS.
		1 KILOGRAM	4 NOS.
		TOTAL	15 SET
(2)	WEIGHTS	500 GRAM	15 NOS.
		200 GRAM	15 NOS
		10 KILOGRAM	15 NOS
		5 KILOGRAM	15 NOS.
		20 KILOGRAM	15 NOS.
		TOTAL	75 NOS.
(3)	CONICAL MEASURE	2 LITRE	1 NO.
		1 LITRE	1 NO.
		500 MILLILITRE	1 NO.
		200 MILLILITRE	1 NO.
		100 MILLILITRE	1 NO.
		TOTAL	5 NOS.
(4)	DIPPING MEASURE	2 LITRE	1 NO.
		1 LITRE	1 NO.
		500 MILLILITRE	1 NO.
		200 MILLILITRE	1 NO.
		100 MILLILITRE	1 NO.
		50 MILLILITRE	1 NO.
		20 MILLILITRE	1 NO.
		TOTAL	7 NOS.
(5)	CLOTH METER		1 NO.
(6)	COUNTER MACHINE	2 KILOGRAM	5 NOS.
		5 KILOGRAM	5 NOS.

(B) LICENCE FOR A DISTRICT :

(1)	SCALE – C CLASS	20 KILOGRAM	1 NO.
		10 KILOGRAM	1 NO.
		5 KILOGRAM	1 NO.
		2 KILOGRAM	1 NO.
		1 KILOGRAM	1 NO.
		TOTAL	5 NOS.
(2)	WEIGHTS	20 KILOGRAM	1 NO.
		10 KILOGRAM	1 NO.
		5 KILOGRAM	1 NO.
		2 KILOGRAM TO 50 GRAM WEIGHTS	5 SETS
		TOTAL	10 NOS.
(3)	METER	CLOTH METER	NO.1
(4)	CONICAL MEASURE	1 LITRE	NO.1
		500 MILLILITRE	NO.1
		200 MILLILITRE	NO.1
		100 MILLILITRE	NO.1
		TOTAL	4 NOS.
(5)	DIPPING MEASURE	1 LITRE	NO.1
		500 MILLILITRE	NO.1
		200 MILLILITRE	NO.1
		100 MILLILITRE	NO.1
		TOTAL	4 NOS.
(6)	COUNTER BALANCE	2 KILOGRAM	3 NOS.
		5 KILOGRAM	2 NOS.
		TOTAL	5 NOS.
(7)	BULLION WEIGHTS	1 KILOGRAM TO 1MILLIGRAM – 2 SET.	
(8)	SCALE B CLASS	5 KILOGRAM	1 NO.
		1 KILOGRAM	2 NOS.
		500 GRAM	2 NOS.
		100 GRAM	2 NOS.

TABLE-D

LIST OF EQUIPMENTS FOR ALL LICENSED REPAIRERS SHALL BE REQUIRED TO KEEP LOAN SETS FOR REPAIRING OF ELECTRONIC WEIGHING INSTRUMENTS.

(1) 300 GRAM / 10 MILLIGRAM

(2) 5 KILOGRAM / 500 MILLIGRAM

(3) 10 KILOGRAM / 1 GRAM

(4) 30 KILOGRAM / 2 GRAM

(5) 30 KILOGRAM 5 GRAM

(6) 50 KILOGRAM / 5 GRAM

REPAIRER HAS TO KEEP MINIMUM OF ONE ELECTRONIC BALANCE EACH OF ABOVE AS LOAN SET.

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TABLE-E

LIST OF EQUIPMENTS FOR ALL LICENSED REPAIRERS SHALL BE REQUIRED TO KEEP TEST WEIGHTS AND MEASURES

(1) ELECTRONIC BALANCES FOR WEIGHT TESTING :

(1) 200 GRAM / 1 MILLIGRAM
(2) 2 KILOGRAM / 10 MILLIGRAM
(3) 20 KILOGRAM / 100 MILLIGRAM
(4) 50 KILOGRAM / 1 GRAM

(2) WEIGHTS FOR TESTING OF ELECTRONIC BALANCE

20 KILOGRAM	4 NOS.
10 KILOGRAM	2 NOS.
5 KILOGRAM	2 NOS.
2 KILOGRAM	2 NOS.
1 KILOGRAM	2 NOS.
500 GRAM TO 1 GRAM	2 SET

(3) 2 KILOGRAM TO 20 MILLIGRAM BULLION WEIGHTS – ONE SET

(4) METER — CLOTH METER

(5) CONICAL MEASURE

10 LITRE	NO.1
5 LITRE	NO.1
2 LITRE	NO.1
1 LITRE	NO.1
500 MILLILITRE	NO.1
200 MILLILITRE	NO.1
100 MILLILITRE	NO.1

(6) DIPPING MEASURE

2 LITRE	NO.1
1 LITRE	NO.1
500 MILLILITRE	NO.1
200 MILLILITRE	NO.1
100 MILLILITRE	NO.1
50 MILLILITRE	NO.1
20 MILLILITRE	NO.1

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TABLE-F

LIST OF TOOLS AND ACCESSORIES FOR THAT ALL THE LICENCEE MANUFACTURER SHALL BE REQUIRED IN THEIR PRODUCTION WORKSHOP.

(1) PORTABLE DRILL MACHINE

(2) BENCH TYPE DRILL MACHINE

(3) WELDING MACHINE

(4) PORTABLE DISC GRINDER

(5) BENCH GRINDER

(6) GAS CUTTING SET WITH PUG MACHINE

(7) MAGNET DRILL FOR WEIGHBRIDGE MANUFACTURING

(8) DIGITAL MULTI COLOUR

(9) SOLDERING IRON

(10) DESOLDERINGGUN

(11) SOLDERING WIRE

(12) NUMBER PUNCH SET AND ABCD PUNCH SET

(13) NOSE PLIER AND PLIER

(14) SET OF SCREW DRIVER

(15) ALLEN KEY SET

(16) DRILL MACHINE SPANNER SET

(17) FLAT AND ROUND FILE SET

(18) BULLION WEIGHT – 2 kg TO 1 mg

(19) C.I. WEIGHTS – 20 KILOGRAM, 10 KILOGRAM, 5 KILOGRAM, 2 KILOGRAM TO 50 GRAM SET

(20) HAMMER SET

(21) CUTTER

(22) SPANNER SET

(23) LID SHEEL (SQUARE)

(24) SEAL WIRE

(25) WEIGHBRIDGE MANUFACTURER WILL HAVE TO FACILITATE OVERHEAD CRANE FOR MORE THAN 5 TON CAPACITY WEIGHBRIDGE

(26) TESTING WEIGHTS SHALL BE OF MINIMUM 1/4TH CAPACITY OF THE MAXIMUM CAPACITY OF WEIGHBRIDGE TO BE MANUFACTURED.

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SCHEDULE VII

(See rule 13)

FORM LM-4

Register to be maintained by the manufacturers of weights and measurers.

1- Name and address of the manufacturer

2- Description of the weight or measure

3- (i) No. of the manufacturing licence

(ii) Date on which the licence was issued

(i) Period of validity of the licence

4- Particulars of order, if any, suspending or revoking
the licence.

(A) STOCK STATEMENT

Sr. No.	Opening Stock	Quantity manufactured during the month	Total (2+3)	Quantity sold during the month	Closing stock (4-5)
1	2	3	4	5	6

(B) TRANSACTION STATEMENT

Sr. No.	Des-patch vou-cher no. & date	Type of Weight / Measure	Quan-tity	Sold inside or outside State (I / O)	Category of purchaser Dealer / Trader (D / T)	Details of Dealer			Details of trader				
						Licence No.	Name	Address	Name	Address	EPIC No.	Ration Card No.	
1	2	3	4	5	6	7	8	9	10	11	12	13	

Note :

In column 5 - Letter **"I"** stands for Inside State and Letter **"O"** stands for Outside State.
In column 6 - Letter **"D"** stands for Dealer and letter **"T"** stands for Trader
Only the letters **I / O** and **D / T** are to be mentioned the prescribed columns.

* It is mandatory to provide the above details every quarter in the form of an online return alongwith the signed paper copy to the concerned office.

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Schedule VII

(See rule 13)

FORM LR-4

Register to be maintained by the repairer in respect of weights, Measures

Name and address of the repairer …….. Licence No……

Date of Licensing ……..

REPAIRER RETURN

Sr. No.	Date	Details of user				Last Verifi-cation Certi-ficate No. and Date	Details of weights / measures / instruments		Rece-ipt No. and date of issue to the user	Bill No.	Veri-fication certi-ficate No. and date	Remarks
		Name	Add- ress	Elec-tion card No.	Ration Card No.		Weights / measures / instru-ments (codes only)	Nos.				
1	2	3	4	5	6	7	8	9	10	11	12	13

* It is mandatory to provide the above details every quarter in the form of an online return alongwith the signed paper copy to the concerned office.

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Schedule VII

(See rule 13)

FORM LD-4

Register to be maintained by dealer in weights and measures.

1- Name and address of the dealer

2- Description of the weight or measure

3- (i) Dealer licence No.

(ii) Date on which the licence was issued

(iii) Period of validity of licence

4- Particulars of order, if any suspending or

Revoking the licence.

5- Category of weight or measure

(Category A or B)

(A) STOCK STATEMENT

Sr. No.	Opening Stock	Quantity sold during the month	Closing stock (2-3)
1	2	3	4

(B) TRANSACTION STATEMENT

Sr. No.	Des-patch vou-cher no. & date	Type of Weight / Measure	Quan-tity	Sold inside or outside State (I / O)	Category of purchaser Dealer / Trader (D / T)	Details of Dealer			Details of trader				
						Licence No.	Name	Address	Name	Address	EPIC No.	Ration Card No.	
1	2	3	4	5	6	7	8	9	10	11	12	13	

Note :

In column 5 - Letter **"I"** stands for Inside State and Letter **"O"** stands for Outside State.

In column 6 - Letter **"D"** stands for Dealer and letter **"T"** stands for Trader

Only the letters **I / O** and **D / T** are to be mentioned the prescribed columns.

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Schedule VIII

(See rule 16 (3))

Office of the Controller, legal metrology, Gujarat State

Certificate of verification

Name of Legal Metrology Officer No.....

I hereby certify that I have this day verified and stamped / rejected the under mentioned weights, measurers, etc.

Belonging to Locality

Ration Card No. / Voter ID No. / PAN No.

Quantity	Denomination		Weighing instruments				Measuring Instrument instruments	Verification Fee Rs. p	Late fee if any	Carriage, conveyance adjusting charges etc.
	Weights	Measures	Capacity	Class	Manufact	Type				
1	2	3	4	5	6	7	8	9		10

Total Rs. deposited vide T. Receipt/ Money receipt .No. dated

Last VC No. and date :

Repaired by/ Used by

..... (Signature)

Next verification due on Legal Metrology Officer

Note:-

(1) The trader / user can present his weights and measures directly to the Legal Metrology Officer also.

(2) In the case of rejected weights, measures, etc the legal metrology officer shall give separate Certificate of rejection mentioning the reasons of rejection against each item.

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SCHEDULE IX

(See rule 17)

Fee payable for verification and Stamping of Weights and Measures and Weighing and Measuring Instruments

1. **(a) Bullion Weights:**

Denomination (1)	Fee per piece (Rs.) (2)
10 Kg.	30.00
5 Kg.	20.00
2 Kg.	20.00
1 Kg.	20.00
500 g.	15.00
200 g.	15.00
100 g.	15.00
50 g.	15.00
20 g.	15.00
10 g.	15.00
5 g.	15.00
2 g.	15.00
1g	15.00

(b) **Carat Weights:**

100g (500 c)	20.00
40g (200 c)	20.00
20g (100 c)	20.00
10g (50 c)	20.00
4g (20 c)	20.00
2g (10 c)	20.00
1g (5 c)	20.00
400mg (2 c)	20.00
200mg (1 c)	20.00
100mg (0.5 c)	20.00
40mg (0.02 c)	20.00
20mg (0.01 c)	20.00
10mg (0.05 c)	20.00
4mg (0.02c)	20.00
2mg (0.01 c)	20.00
1mg (0.005c)	20.00

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(c) Cylindrical knob type weights:

Denomination (1)	Fee per piece (Rs.) (2)
10 Kg.	20.00
5 Kg.	20.00
2 Kg.	15.00
1 Kg.	10.00
500 g.	5.00
200 g.	5.00
100 g.	5.00
50 g.	5.00
20 g.	5.00
10 g.	5.00
5 g.	5.00
2 g.	5.00
1g	5.00

(d) Sheet metal Weight (other than Bullion)

Denomination (1)	Fee per piece (Rs.) (2)
500 mg.	5.00
200 mg.	5.00
100 mg.	5.00
50 mg.	5.00
20 mg.	5.00
10 mg.	5.00
5 mg.	5.00
2 mg.	5.00
1 mg.	5.00

(e) Iron hexagonal, knob type weights and parallelepiped weights:

Denomination (1)	Fee per piece (Rs.) (2)
50 Kg.	25.00
20 Kg.	20.00
10 Kg.	20.00
5 Kg.	20.00
2 Kg.	15.00
1 Kg.	10.00
500 g.	5.00
200 g.	5.00
100 g.	5.00
50 g.	5.00
20g	5.00
10g	5.00
5g	5.00
2g	5.00
1g	5.00

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(f) Standard weights for testing of high capacity weighing machines:

Denominations	Fee corresponding to Max permissible relative error 0.5/10000 in Rs.	Fee corresponding to Max permissible relative error 3.3/10000, 1.7/10000 and 1.0/10000 in Rs.
100kg	75.00	50.00
200kg	150.00	100.00
500kg	300.00	200.00
1000kg	750.00	500.00
2000kg	1500.00	1000.00
5000kg	3000.00	2000.00

2. Capacity Measures:

Denomination (1)	Fee per piece (Rs.) (2)
100 litre and above	Rs. 50 for the Ist 100 litre plus Rs. 7 for every additional 100 litre or part thereof subject to maximum of Rs. 5000.
50 l	50.00
20 l	20.00
10 l	20.00
5 l	10.00
2 l	10.00
1 l	10.00
500 ml	10.00
200 ml	10.00
100 ml	10.00
50 ml	10.00
20 ml	10.00
10 ml	10.00
5 ml	10.00
2 ml	10.00
1 ml	10.00

3. Length Measures:

(a) Non-Flexible –

Denomination (1)	Fee per piece (Rs.) (2)
2 m.	10.00
1 m.	10.00
0.5 m.	20.00
1 m. graduated (at every cm)	20.00
0.5 m. graduated (at every cm)	20.00

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(b) Fabric Plastic/ Woven/Steel tapes –

Accuracy Class (1)	Fee per metre in Rs.
Class-I	1.00
Class-II	0.50
Class-III	0.50

(c) Folding Scales –

Denomination (1)	Fee per piece (Rs.) (2)
1 m.	10.00
0.5 m.	10.00

(d) Surveying Chain –

Denomination (1)	Fee per piece (Rs.) (2)
30 m.	100.00
20 m.	100.00

4. Beam Scale Class A & B:

Denomination (1)	Fee per piece (Rs.) (2)
200 kg.	400.00
100 kg.	300.00
50 kg.	150.00
20 kg.	150.00
10 kg.	150.00
5 kg.	100.00
2 kg.	100.00
1 kg.	100.00
500 g and below	60.00

5. Beam Scales Class C& D:

Denomination (1)	Fee per piece (Rs.) (2)
1000 kg.	200.00
500 kg	200.00
300 kg	200.00
200 kg	100.00
100 kg	100.00
50 kg	20.00
20 kg	20.00
10 kg	20.00
5 kg	15.00
2 kg	15.00
1 kg	15.00
500 g and below	10.00

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6. **Non-Automatic Weighing Instruments - Mechanical (analogue) Class III & IIII :**

Denomination (1)	Fee per piece (Rs.) (2)
400 t	4000.00
300 t	3000.00
200t	3000.00
150 t	2000.00
100 t	2000.00
80 t	2000.00
60 t	2000.00
50 t	2000.00
40 t	2000.00
30 t	2000.00
25 t	2000.00
20 t	2000.00
15 t	2000.00
10 t	1000.00
5 t	500.00
3 t	400.00
2 t	400.00
1500 kg	300.00
1000 kg	300.00
500 kg	300.00
300 kg	200.00
250 kg	200.00
200 kg	100.00
150 kg	100.00
100 kg	100.00
50 kg	100.00
30 kg	100.00
25 kg	60.00
20 kg	60.00
15 kg	30.00
10 kg	30.00
5 kg	30.00
3 kg	30.00
2 kg	30.00
1 kg	15.00
500 g. and below	15.00

7. **Non-Automatic Weighing Instruments - Electronic Class III & IIII :**

Denomination (1)	Fee per piece (Rs.) (2)
400 t	4000.00
300 t	3000.00
200t	3000.00
150 t	2000.00
100 t	2000.00
80 t	2000.00
60 t	2000.00
50 t	2000.00
40 t	2000.00

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Denomination (1)	Fee per piece (Rs.) (2)
30 t	2000.00
25 t	2000.00
20 t	2000.00
15 t	2000.00
10 t	1000.00
5 t	1000.00
3 t	500.00
2 t	500.00
1500 kg	250.00
1000 kg	250.00
500 kg	250.00
300 kg	200.00
250 kg	200.00
200 kg	200.00
150 kg	200.00
100 kg	200.00
50 kg	200.00
30 kg	200.00
25 kg	200.00
20 kg	100.00
15 kg	100.00
10 kg	100.00
5 kg	100.00
3 kg	100.00
2 kg	100.00
1 kg	100.00
500 g. and below	100.00

8.(A) Non - Automatic Weighing instruments both mechanical and electronics class I & II:

Capacity	Fee (Rs.)
Exceeding 50 t	3000.00
Not exceed 50t but exceed 10t	2000.00
Not exceed 10t but exceed 1t	1000.00
Not exceed 1t but exceed 50kg	500.00
Not exceed 50kg but exceed 10kg	250.00
Not exceed 10kg	200.00

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8.(B) Automatic Weighing Instruments:

Capacity	Fee in Rs.
Exceeding 100 t	4000.00
Not exceeding 100t but exceeding 50t	3000.00
Not exceeding 50t but exceeding 10t	2000.00
Not exceeding 10t but exceeding 1t	1000.00
Not exceeding 1t but exceeding 50kg	500.00
Not exceeding 50kg but exceeding 10kg	250.00
Not exceeding 10kg	200.00

9. Volumetric measuring instruments:

(a) Dispensing pumps each pump : Rs.1000.00 per unit

(b) Totalizing counter : Rs. 500.00 per unit

(c) Other instruments :

Capacity	Fee in Rs.
Exceeding 100 litre	Rs. 500 for the Ist 100 liters plus Rs. 250 for every additional 100 liters or part thereof
Not exceeding 100 litre but exceeding 50 litre	500.00
Not exceeding 50 litre but exceeding 20 litre	250.00
Not exceed 20 litre	200.00

10. Flow meters:

Flow rate up to 100 litre/ min. Rs.2000.00

Above 100 litre/ min upto 500 litre/ min Rs.3000.00

Above 500 litre /min. Rs.5000.00

11. Linear Measuring Instruments:

Taxi, Autorishaw meters Rs.100.00

Other meters Rs.50 for the Ist 1000 m. or part there of

Plus Rs. 5.00 for every additional 100 m. or part thereof

12. Clinical Thermometer Rs. 0.50 per unit

13. Water meter Rs. 25.00 per unit

14. Peg Measure:

30 ml	50.00
60 ml	50.00
100 ml	50.00

15. CNG Dispensers: Rs. 1000.00 per unit

16. LPG Dispensers: Rs. 1000.00 per unit

17. Counter Machine:

Capacity up to 10 kg Rs. 20.00

Capacity above 10 kg Rs. 50.00

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SCHEDULE X

(See rule 25(1))

Form of appeal against an order of a Legal Metrology Officer or Controller of Legal Metrology:-

1. Name and address of the appellant :-
2. No. and date of order of Legal Metrology Officer/ Controller of Legal Metrology against which the appeal is preferred :-
3. Whether the appellant desires to be heard in person or through an authorized representative :-
4. Grounds of appeal

SCHEDULE XI

(See rule 26)

Compounding fees for various offences

Sr. No.	Section of the Act and nature of offence	Penal Section of the Act	Compounding fee
1	S. 8(3) Use of weight, measure or numeration other than the Standard weight, measure or numeration	25	Rs.2500.00
2	S. 8(4) Manufacture of weight or measure not conforming to Standards	27	Rs.2000.00
3	S. 8(4) Import of weight or measure not conforming to Standards	39	Rs.5000.00
4	S. 10 Transaction or dealing or contract in respect of goods etc, by weight, measure or number than prescribed.	28	Rs.1000.00
5	S. 11 Quote or make announcement or issue or exhibit of price list or changing of price than in accordance with standard unit of weight or measure or numeration.	29	Rs.1000.00
6.	S. 12 Demanding or receiving any articles or thing on service in excess or less than the quantity specified by contract or agreement. For Hawkers of Vgetables/Fruits For Vegetables/Fruits Traders For Fair Price Shop For Hawkers delivering less Kerosene for domestic purpose For less delivery except dispensing Pump / GAS filling plant / LPG dealer / CNG dealer / Weighbridge For Dispensing Pump / GAS filling plant / LPG dealer / CNG dealer / Weighbridge	30	 Rs. 150.00 Rs. 1500.00 Rs. 1500.00 Rs 500.00 Rs 3000.00 Rs 7500.00
7	S. 17 Maintenance of records, registers by manufacturer, dealer or repairer and production of weight, measure document, register on demand	31	Rs.500.00
8	S.18(1) Compliance of declaration in respect of pre-packaged commodity by manufacturer/ dealer For Retailer For Whole seller For Manufacture/Packer/ importer	36(1)	 Rs 500.00 Rs 1000.00 Rs 2500.00
9	S. 18(1) Compliance of net quantity- requirement of pre-packaged commodity by manufacturer	36(2)	Rs.10000.00
10	S. 19 Import of weight or measure without registration	38	Rs.2500.00

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Sr. No.	Section of the Act and nature of offence	Penal Section of the Act	Compounding fee
11	S. 23 Manufacturer/ repair/ sale of weight or measure only with licence	45	Rs.2000.00
12	S. 24 Use of verified weight or measure in transaction or protection	33	Rs. 2000.00
13	S. 53(3) Provision of any rule made under the Act	53(3)	Rs 5000.00
14	Rule 14(1) Fails without any reasonable cause to present weight or measure for re verification For Hawkers of Vegetables / Fruits For Traders gold-jewellry For Industries and Manufacturer under PCR For other category except above	Rule 25	 Rs 100.00 Rs 1000.00 Rs 2000.00 Rs 500.00

SCHEDULE XII
(See rule 11(5))

Form of alteration in license

1 Name of firm ;

2 Nature of the firm : Individual/partnership/Pvt. Ltd/Public Ltd/ Co-Operative.

3 Firm Commencement date :

4 Details of alteration require : Existing:

Propose:

5 Documents attached :

Note:
1 For any alteration pre sanction is mandatory except in the case of death
2 Only in case of death of person, application to delete the name from license require to be submitted with in 60 days from the death.

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SCHEDULE XIII

(See rule 15(1))

APPLICATION FOR STAMPING OF WEIGHTS AND MEASURES

To,

.....

(Name of Inspector of Legal Metrology)

.....

Office of the Inspector of Legal Metrology

.....

(Identification Number)

Name of Traders :.....

Residence address :

Address of Business :

Telephone No. :(R)

(O)

(M)

Type of Business :

Name of Police station (applicable) :

Ration Card Number :

Election Card Number :.....

VAT Number :.....

I am submitting the details of weights and measures in the statement attached herewith used by me. You are requested to do the verification and stamping work as per rules.

(Signature of the Applicant)

Place :

Date :

DETAILS OF WEIGHTS AND MEASURES

Details of Weights and Measures presented for stamping							Number and date of last verification certificate	Reason for not submitting the last verification certificate
Number and Capacity		Weighing instruments				Measuring instruments		
Weights	Measures	Type	Manufacturer	Capacity	Class			
1	2	3	4	5	6	7	8	9

SCHEDULE XIV

(See rule 21(3))

Punch of eight - pointed star for obliterating stamps.



By order and in the name of the Governor of Gujarat,

Y. B. PATEL
Additional Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

મહિલા અને બાળ વિકાસ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૩૧મી માર્ચ, ૨૦૧૧.

પારિવારીક હિંસા સામે સ્ત્રીઓના રક્ષણ બાબતનો અધિનિયમ, ૨૦૦૫.

ક્રમાંક : ગુ.રા.-(૨)-૨૦૧૧-દહેજ-૧૦૨૦૧૦-૮૧૪૭૬૭-૨૨૫૮-અ.- પારિવારીક હિંસા સામે સ્ત્રીઓના રક્ષણ બાબતના અધિનિયમ, ૨૦૦૫ (૨૦૦૫નો ૪૩મો) ની કલમ ૮(૧) ની જોગવાઈ હેઠળ મળેલ સત્તાની રૂએ દહેજ પ્રતિબંધક અધિકારીશ્રીઓને ઝોનલ દહેજ પ્રતિબંધક અધિકારીઓ તેમજ સમાજ સુરક્ષા અધિકારીઓને, નીચે દર્શાવેલ પત્રક મુજબના વિસ્તાર માટે "પ્રોટેકશન અધિકારી" તરીકે આથી રાજ્ય સરકાર જાહેર કરે છે.

(૧) જે તે વિસ્તારના ઝોનલ દહેજ પ્રતિબંધક અધિકારી, ઝોનલના મુખ્ય શહેર તેમજ તે તાલુકાના પ્રોટેકશન અધિકારી તરીકે રહેશે. તદઉપરાંત સદરહુ સમગ્ર ઝોનમાંની જિલ્લાની દહેજ પ્રતિબંધક અધિકારીની ખાલી જગ્યા માટે પણ પ્રોટેકશન અધિકારી તરીકેની કામગીરી પણ સંભાળવાની રહેશે.

(૨) જે વિસ્તારમાં દહેજ પ્રતિબંધક અધિકારીની જગ્યા ખાલી હોય ત્યાં સમાજ સુરક્ષા અધિકારીએ પ્રોટેકશન અધિકારી તરીકેની કામગીરી સંભાળવાની રહેશે.

પત્રક

ક્રમ	જિલ્લાનું નામ	જિલ્લા સમાજ સુરક્ષા અધિકારી	દહેજ પ્રતિબંધક અધિકારી
(૧)	(૨)	(૩)	(૪)
૧	અમદાવાદ	સાણંદ, વિરમગામ, દસક્રોઈ	ધંધુકા, ધોળકા, બાવળા
૨	વડોદરા	સાવલી, પાદરા, કરજણ, ડભોઈ	છોટા ઉદેપુર, ક્વાંટ, સંખેડા, જેતપુર-પાવી
૩	સુરત	માંડવી, માંગરોળ, ઓલપાડ, કામરેજ	ચોર્યાસી, પલસાણા, બારડોલી, ઉમરપાડા
૪	રાજકોટ	ગોંડલ, જેતપુર, ધોરાજી, ઉપલેટા, જામકંડોરણા	વાંકાનેર, મોરબી, ટંકારા, માળીયા હાટીના, લોધીકા, જસદણ, પડધા
૫	અમરેલી	અમરેલી શહેર અને તાલુકો તથા લાઠી બાબરા	કુંકાવાવ વડીયા, લીલીયા, બગસરા, સાવરકુંડલા, રાજુલા, ધારી, જાફરાબાદ, ખાંભા
૬	બનાસકાંઠા	પાલનપુર શહેર અને તાલુકો તથા અમીરગઢ, દાંતા, વડગામ, દાંતીવાડા	ડીસા, ધાનેરા, કાંકરેજ, વાવ-થરાદ, દિયોદર, ભાભર

ક્રમ	જિલ્લાનું નામ	જિલ્લા સમાજ સુરક્ષા અધિકારી	દહેજ પ્રતિબંધક અધિકારી
(૧)	(૨)	(૩)	(૪)
૭	ભરૂચ	ભરૂચ શહેર અને તાલુકો તથા જંબુસર, આમોદ, વાગરા	અંકલેશ્વર, હાંસોલ, વાલીયા, ઝઘડીયા
૮	નર્મદા	નર્મદા શહેર અને તાલુકો તથા સીટી, રાજપીપળા, નાંદોદ	સાગબારા, તિલકવાડા, ડેડીયાપાડા
૯	ડાંગ	-	ડાંગ
૧૦	ભૂજ	ભૂજ શહેર અને તાલુકો તથા અંજાર, ગાંધીધામ	માંડવી, રાપર, મુન્દ્રા, ભચાઉ, નખત્રાણા, લખપત
૧૧	પોરબંદર	પોરબંદર શહેર અને તાલુકો	કુતિયાણા, રાણાવાવ
૧૨	પાટણ	પાટણ શહેર અને તાલુકો તથા સિધ્ધપુર, ચાણસ્મા	હારીજ, સમી, રાધનપુર, સાંતલપુર, વાગડોદ
૧૩	મહેસાણા	મહેસાણા શહેર અને તાલુકો તથા કડી વિસનગર	વિજાપુર, બેચરાજી ઉંઝા અને વડનગર અને ખેરાલુ
૧૪	વલસાડ	વલસાડ શહેર અને તાલુકો તથા પારડી	ધરમપુર, ઉમરગામ, કપરાડા
૧૫	પંચમહાલ	ગોધરા શહેર અને તાલુકો તથા મોરવા (હડપ) ઘોઘંબા, જાંબુઘોડા, કાલોલ	લુણાવાડા શહેરા, ખાનપુર, સંતરામપુર, કડાણા
૧૬	દાહોદ	દાહોદ શહેર અને તાલુકો તથા ગરબાડા, ફતેપુરા, ઝાલોદ	દેવગઢ બારીયા, લીમખેડા, ધાનપુર
૧૭	જુનાગઢ	જુનાગઢ શહેર અને તાલુકો તથા વંથલી, વિસાવદર, ભેંસાણ, માણાવદર	વેરાવળ, સુત્રાપાડા, તાલાલા, કોડીનાર, ઉના, કેશોદ, માંગરોળ, માળીયા-હાટીના, મેદરડા
૧૮	ભાવનગર	ભાવનગર શહેર અને તાલુકો તથા ઘોઘા વલ્લભીપુર, ઉમરાળા, તળાજા	મહુવા, બોટાદ, ગઢડા, ગારિયાધાર, પાલીતાણા, શિહોર
૧૯	આણંદ	આણંદ શહેર અને તાલુકો તથા ઉમરેઠ, આંકલાવ	પેટલાદ, બોરસદ, ખંભાત, તારાપુર અને સોજીત્રા
૨૦	સુરેન્દ્રનગર	સુરેન્દ્રનગર શહેર અને તાલુકો તથા વઢવાણ, લીમડી, ચોટીલા અને સાયલા	ધ્રાંગધ્રા, હળવદ, દસાડા, લખતર, મુળી, ચુડા
૨૧	જામનગર	જામનગર શહેર અને તાલુકો તથા કાલાવડ, ધ્રોળ, જોડીયા	જામખંભાળીયા, દ્વારકા, લાલપુર, કલ્યાણપુર, ભાણવડ, જામજોધપુર
૨૨	નવસારી	નવસારી શહેર અને તાલુકો તતા વાંસદા	ગણદેવી, ચીખલી, જલાલપોર
૨૩	ખેડા (નડીયાદ)	નડીયાદ શહેર અને તાલુકો તથા કઠલાલ, કપડવંજ, બાલાસિનોર	ખેડા, માતર, મહેમદાવાદ, મહુધા, ઠાસરા અને વિરપુર
૨૪	તાપી	વ્યારા શહેર અને તાલુકો સોનગઢ	વાલોડ, નિઝર, ઉચ્છલ
૨૫	સાબરકાંઠા (હિંમતનગર)	સાબરકાંઠા (હિંમતનગર) શહેર અને તાલુકો તથા પ્રાંતિજ, તલોદ, મોડાસા	ભિલોડા, ઈડર, ધનસુરા, વડાલી, વિજયનગર, મેઘરજ, ખેડબ્રમા, બાયડ, માલપુર
૨૬	ગાંધીનગર	ગાંધીનગર શહેર અને તાલુકો	માણસા, કલોલ, દહેગામ

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

દર્પણા ધીમ્મર,
સરકારના નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOREST & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 4th April, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No.GVN-2011-(8)/JJM-2011-S.F.2-F.- In exercise of the powers conferred by the section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its application to the State of Gujarat, (hereinafter referred to as "The said Act") the Government of Gujarat hereby :-

1. (a) Declares that it has been decided to constitute the land in the village of **Vagot** in **Abadasa** Taluka of **Kutch** District specified in the schedule appended hereto, as **'RESERVED FORESTS'** and,

 (b) Appoints the Forest Settlement Officer, **Kutch** (hereinafter referred to as **"The Forest Settlement Officer"** to be the Officer for the purpose of clause (c) of Sub-section (1) of Section 4 and,

2. Appoints the Collector, **Kutch** District at **Kutch** to here the appeals from any orders passed by the said Forests Settlement Officer under section 11, 12, 15 and 16 of the said Act.

SCHEDULE

Taluka : Abadasa District : Kutch

Sr. No.	Name of the Village	Survey No.	Area H.R.Sqm.	Boundaries
1	Vagot	82 Paiki	3.90.00	North : S.No. 82 paiki open land. East : Naliya Rode. South : S. No. 82 paiki open land. West : S. No. 82 paiki open land.
		Total	3.90.00	

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to Government.

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વન અને પર્યાવરણ વિભાગ

સચિવાલય, ગાંધીનગર, ૪ થી એપ્રિલ, ૨૦૧૧.

જાહેરનામું

સને ૧૯૨૭ના ભારતની જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ અન્વયે.

ક્રમાંકઃગવન-૨૦૧૧/(૮)/જજમ-૨૦૧૧-એસ-એફ-૨-એફ. ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ જેનો આમાં હવે પછી ''ઉક્ત અધિનિયમ'' તરીકે ઉલ્લેખ કર્યો છે તેની કલમો (૪) અને (૧૭)ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર, આથી...

(૧) (અ) જાહેર કરે છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ **કચ્છ** જિલ્લાના **અબડાસા** તાલુકાના મોજે. **વાગોટ** ગામની જમીનને **'અનામત જંગલ'** તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે, અને....

(બ) જંગલ નિયામક અધિકારી (ફોરેસ્ટ સેટલમેન્ટ ઓફીસર) ભુજ-કચ્છને જેનો આમાં હવે પછી ઉક્ત **'ફોરેસ્ટ સેટલમેન્ટ ઓફીસર'** તરીકે ઉલ્લેખ કર્યો છે. તેને કલમ-૪ની પેટા કલમ (૧)ની કલમ (ક)ના હેતુઓ સારું **અધિકારી** તરીકે નિયુક્ત કરવામાં આવે છે.

(૨) ઉક્ત અધિનિયમની કલમો ૧૧, ૧૨, ૧૫ અને ૧૬ અન્વયે ઉક્ત ફોરેસ્ટ ઓફીસરે પસાર કરેલ કોઈપણ આદેશો પર અપીલ સાંભળવા **કચ્છ** જિલ્લાના **કલેકટરશ્રીને** નિયુક્ત કરવામાં આવે છે.

અનુસૂચિ

તાલુકો : અબડાસા જિલ્લો : કચ્છ

અ.નં.	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે. આર. ચો.મી.	ચતુઃસીમા
૧	વાગોટ	૮૨ પૈકી	૩. ૯૦. ૦૦	ઉત્તર : સ.નં. ૮૨ પૈકી ખુલ્લી જમીન પૂર્વ : નલીયા રોડ. દક્ષિણ : સ.નં. ૮૨ પૈકી ખુલ્લી જમીન પશ્ચિમ : સ.નં. ૮૨ પૈકી ખુલ્લી જમીન
			૩. ૯૦. ૦૦	

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જયંતિભાઈ પટેલ,
સરકારના ઉપસચિવ

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર

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Extra No. 36 REGISTERED No. G/GNR/2

सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

Vol. LIIJ MONDAY, APRIL 11, 2011/CAITRA 21, 1933

Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya Gandhinagar, 11th April, 2011

INLAND VESSELS ACT, 1917

No. GPT / 24 / 2011 /GMB / 102000 / CS-8 / GH1 :- The following draft of a rules which is proposed to be issued under section 19R of the Inland Vessels Act, 1917 (1 of 1917) is published as required by sub-section (1) of section 74 of the said Act, for the information of all persons likely to be affected thereby and notice is hereby given that the said draft of proposed rules will be taken into consideration by the Government of Gujarat on or after the expiry of thirty days from the date of its publication in the *Official Gazette*.

2. Any objection or suggestion which may be received by the Secretary, Ports and Transport Department, Sachivalaya, Gandhinagar, from any person with respect to the said draft before the expiry of the aforesaid period, will be considered by the Government.

DRAFT NOTIFICATION

No. GPT/24/2011/GMB/102000/CS-8/GH1 :- In exercise of the powers conferred by section 19R of the Inland Vessels Act,1917 [1 of 1917], the Government of Gujarat, hereby makes the following rules, namely :-

1. **Short Titles And Application.-** (1) These rules may be called the **Gujarat Inland Vessels Registration Rules, 2011.**

(2) Save as expressively provided otherwise, these rules shall apply to all inland vessels plying within the limits of Gujarat Ports.

2. **Definitions:** - In these rules, unless the context otherwise requires:-

(a) "Act," means the Inland Vessels Act, 1917 (1 of 1917);

(b) "Registering Authority" means the officers appointed as Registering

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Authority by the Government; under sub-section (1) of section 19B of the Act;

(c) "Government" means the Government of Gujarat;

(d) "vessels" means a vessel ordinarily plying in inland waters and within the limits of the Ports of Gujarat;

(e) "fees or fees" means the fee prescribed in the Schedule of Fees and paid in advance;

(f) "Headquarters" means Headquarters designated by the Government under these rules;

(g) "Surveyors" means surveying authority appointed by the Government under these rules;

3. **Inland vessel not to proceed on voyage unless has certificate of registration .-**

(1) An Inland vessel shall not proceed on any voyage or be used for any service unless it has a certificate of registration in force in respect thereof and granted under these rules.

(2) Nothing in this section shall apply to any inland vessel built at any place other than a place of registry and making her first voyage to any such place for the purpose of registration.

(3) The Government may by notification in the Official Gazette. -

(a) Declare such place or port within the territories under its administration as it thinks fit to be places of registry,

(b) appoint registering authorities at the place and port mentioned in clause (a) above for the purpose of these rules.

4. **Application For Registration.-** (1) Every application for registration of a vessel shall be made by the owner of the vessel or his authorised agents or by his legal or natural guardian to the Registering Authority notified by the Headquarters or the Government,-

(a) in case of an individual or partnership firm in Form GIVR-I, and .

(b) in case of a company or co-operative society in Form GIVR-l (A).

(2) The application shall accompany:-

(a) Declaration of ownership in Form GIVR - 1 (B),

(b) If the owner is a citizen of India, proof of citizenship and his permanent and present address,

(c) If the owners are a partnership firm or a concern, proof of partnership and citizenship of all partners,

(d) If it is a Company registered under the Companies Act, 1956 (I of 1956) in the Gujarat State

(i) Registration Certificate issued by the Registering Authority of Companies, and

(ii) Proof of citizenship and addresses of all Directors.

(e) In case of a Co-operative Society registered under the Gujarat Co-operative Societies Act, copy of registration, proof of citizenship and addresses of all members.

(f) In case of minor, proof of his/her citizenship and proof of citizenship of legal or official guardian.

(g) Fees as prescribed in SCHEDULE.

5. **Application for Registration of New Construction-** in case of an application for registration of a vessel for new construction, in addition to the requirements prescribed in sub- rule (2) of rule 4, the following information or documents shall also be furnished along with the application, namely:-

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(1) Drawings and computation as required under clauses (b},{(c) and (d) below and signed by a Naval Architect or Classification Society approved by Government of India, showing the following plans,-

(i) G.A. plans, construction, shell expansion, machinery and machinery lay out, propeller, shafting, gears and steering plans, pipeline such as bilge' and ballast, oil transfer etc.,

(ii) wheel house, crew accommodation, passages, galleys etc.,

(iii) change of Air for Engine Room, crew accommodation etc.,

(iv) life saving, fire fighting, light and sound signals,

(v) for special type of vessels, relevant plans.

(2) Computation of the strength of hull, decks, bulkhead including collision bulkhead etc.

(3) Computation of stability, free board clearly showing amount of cargo and method of its placement, depicting calculation of metacentric height.

(4) Computation of tonnage measurement as per rules shown in Annexure.

(5) Certificates of all materials used, and

(6) Certificate of machineries from manufacturers, or classification societies or surveyors.

6. **Application for Registration of existing vessels-** (1) If a vessel is already in existence and is registered in the State of Gujarat or in any other state in India under the Inland Vessel Act, 1917 or the Coasting Vessel Act, 1838 or rules framed there under by any State or Central Government, an application for registration of such existing vessels, in addition to the requirements prescribed under sub-rule (2) of rule 4, the following information or document shall also be furnished along with the application made under rule 4, namely,-

(a) No objection certificate from the State Government or Central Government from where the vessels registration is required to be transferred,

(b) In case the vessel is already mortgaged or hypothecated, no objection certificate from the Mortgagers or hypothecators,

(c) All possible data from the Registering Authority with whom the vessel was registered in the past, regarding stability, drawings as required in other provisions of these rules, and builders certificate if available:

Provided that if the previous Registering Authority is unable to supply the data, for any reasons whatsoever and communicates this in writing, the registration of a vessel need not to be withheld, if it can be established by the owner that the requirements regarding strength, stability etc. of the vessel, are as per the provisions of these rules.

(2) In case the vessel is not registered with any State or Central Government, the applicant shall furnish information or documents as prescribed in sub-rule (2) of rule 4 and rule-5 together with the reasons in details explaining the circumstances due to which the vessel was not registered.

7. **Inspection and inquiry by the Registering Authority.** (1) On receipt of the application for registration, the Registering Authority, if it considers the inspection of the vessel necessary, shall, fix the date and time of inspection and inform the applicant accordingly in Form GIVR-II.

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(2) It shall be the duty and obligation of the owner of the vessel to furnish all such information as may be required by the Registering Authority and to afford all reasonable facilities to the Registering Authority or any person authorised by them in carrying out the inspection of the vessel, in such a manner as it deems necessary, for the purpose of satisfying itself, that the provisions of the Act and rules framed there under, have been complied with.

8. **Registration mark, approval of name of vessel and Issuance of official number.-**

(1) The Registering Authority shall, after satisfying itself that the provisions of the Act and rules made there under have been complied with, assign to the vessel serially a Registration number and mark after approving the name of the vessel.

(2) The owner or its Agent, at the time of application, shall furnish at least three names in chronological order of his choice for approval. The Registering Authority on ensuring that the same or similar sounding names has not been previously assigned to any other vessel, shall approve one name out of the proposed names. In case all the names suggested or similar sounding names have already been previously assigned, the owner shall be requested by the Registering Authority to furnish further three names and the process shall be continued till the parameters laid down above are met with.

(3) The Registering Authority shall intimate the applicant, in Form GIVR-II(A) the approved registration mark, number and name of the vessel. On receipt of approved registration mark, number and name of the vessel, the owner or the agent shall carve the name, marking and number on both the bows of the vessel and also on a prominent and conspicuous location easily identifiable on the super structure. The size of the letters shall not be lesser than 20 cms x 15 cms. In special circumstances, for a smaller vessel, at the discretion of the Registering Authority, these dimensions may be reduced to a size not less than 10 cms x 8 cms.

(4) The Port of Registry shall be carved and painted at the stern of the vessel conspicuously. The draft marks shall be prominently carved and painted conspicuously on forward and aft both port and starboard sides, respectively.

9. **Inspection of carving and marking and forwarding of Inspection certificate.** (1) On completion of carving and marking, the Registering Authority, on receiving intimation from the owner, shall cause, carving and marking inspected and certified and the inspecting authority shall forward the certificate to that effect to the Registering Authorities office.

(2) The owner of the vessel shall not give or assign any other name and official number and mark to such a vessel other than that by which the vessel is officially registered.

(3) In case the owner of the vessel registered under these rules intends to change the name, he may do so only after getting prior sanction from the Registering Authority of the vessel clearly giving the reasons for proposed change of name in writing and after payment of fees specified in Schedule. It shall be at the discretion of the Registering Authority, to approve the proposed change of name if it is satisfied that the other requirements of the relevant provision of these rules are fulfilled.

(4) The Registering Authority shall cause to ascertain the tonnage, particulars of the vessel, all main and auxiliary machinery and other requirements are in accordance with the relevant provisions of these rules. These particulars shall have to be incorporated in the certificate of registration issued under rule 10 and in the book of registration maintained under rule 12.

10. **Certificate of Registration.-** (1) The Registering Authority shall, after satisfying itself that the provisions of the Act and these rules have been complied with and after receipt of fees prescribed under rule 23, grant a certificate of registration to the vessel in Form GIVR-III.

(2) A certificate of registration granted in respect of any inland vessel, shall be used only for the purpose of lawful navigation of that vessel.

(3) The owner or the master of the vessel shall cause to keep a certified copy of the certificate of registration on board the vessel and to produce the original certificate of registration on demand by the Registering Authority or by such authority as may be notified by the Government.

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(4) The Registering Authority may refuse to register an inland vessel if she is found to be defective or if the applicant fails to furnish satisfactory evidence in support of any statements made by him in the application. The Registering Authority when refuses to register any inland vessel, shall furnish in writing the reasons for such refusal to the applicant and send a copy of the same to the Headquarters.

(5) The applicant or the owner of the vessel shall have right to appeal to the Headquarters after payment of fees as specified in the Schedule, within a period of ten days from the date of receipt of advice for refusal of registration.

(6) On receiving such an appeal from the owner or applicant and after giving reasonable opportunities of being heard to the parties the appellate authority shall pass appropriate orders in Form GIVRA HQ-II.

(7) On receipt of orders from the appellate authority pass under sub-rule (6), the Registering Authority shall take appropriate action under intimation to the Head - quarters.

11. **Temporary Certificate of Registration.-** (1) In certain special circumstances, the Registering Authority, may grant a temporary registration certificate in Form GIVR- III (A) to a vessel to enable her to ply while the certificate of registration is under consideration. This temporary certificate of registration shall be valid for the time and within the limits therein mentioned and shall have the same effect as a certificate of registration.

(2) The temporary certificate of registration shall not be issued for a period of more than three months. No certificate of registration shall be issued by the Registering Authority unless the temporary certificate of registration, if any, issued previously, has been surrendered by the owner or agent of the vessel.

12. **Book of Registration.-** (1) A book of registration of inland vessels shall be maintained by the Registering Authority in bound volume in Form GIVR-IV designating a page separately for each registered vessel, which shall contain all the particulars given in the certificate of registration.

(2) Any change in ownership, alteration in dimensions of the vessel, machineries, registration or discharge of mortgages or any other particulars in respect to any vessel registered in the book of registration shall have to be recorded accordingly.

(3) A copy of certificate issued on each occasion, shall be furnished to Headquarters within a period of one month of the date of recording in the book of registration.

13. **Mortgage of Inland Vessel or share.** (1) A registered Inland Vessel or a share or an interest therein may be mortgaged or made a security for a loan or other valuable consideration.

(2) Every instrument of mortgage of vessel or any interest thereon shall be,-

(a) in Form GIVRM-I for individual or partnership firm or concern, and

(b) in Form GIVRM-II for company, corporate body or co-operative society, as the case may be,-

(3) The Registering Authority shall, after satisfying itself that the instrument is properly executed, and fees have been received, record the same in register with the date and hour of acceptance and also make an endorsement to that effect on the instrument of mortgage and shall furnish the copy of the same to the Headquarters.

(4) Where there are two or more mortgages on the same vessel, the respective priorities shall be indicated in the register in the appropriate column by the letters A,B,C in the alphabetical order.

(5) Where a vessel, belonging to a company, corporate body or co-operative society is mortgaged, the Registering Authority shall not register the mortgage unless it has also been registered with Registering Authority of Companies under the Companies Act, 1956, or as the case may be, Registration of Co-Operative Societies.

(6) The provisions of section 47, 48, 49, 50, 51, 52 and 53 of the Merchant Shipping Act, 1958, shall mutatis mutandis apply, in relation to the mortgage of a mechanically propelled vessel as they apply in relation to ships, subject to the following modifications, namely :-

(a) in sections 47, 48, 49, 50. 51, 52 and 53, references to "ship", "Registering Authority" and "register book", wherever they occur, shall, respectively, be deemed to be construed as references to "mechanically propelled vessel", "Registering Authority" and "book of registration";

(b) in section 47, in sub-section (1}, for the words "the Registering Authority of the ship's port of registry shall record it in the register book", the words "the Registering Authority shall record it in the book of registration" shall be deemed to be substituted."

(7) When the mortgage debt is fully discharged, the Registering Authority after satisfying itself and after receiving the fees prescribed under these rules shall make such endorsement in the book of registration and on the instrument of mortgage specifying time and date of discharge of mortgage. The Registering Authority thereafter, shall furnish a copy of the same in Form GIVR-IV to the Headquarters within a period of one month from the date of recording in the book of registration and on request, may issue a letter to that effect to the owner or mortgagor.

(8) No part payment of any instrument of mortgage debt shall be recorded in the book of registration.

14. **Registration of alteration:-** (l)Any alteration in the registered vessel is required to be notified together with certificate of registration to the Registering Authority within a period of one month of alteration being carried out in Form GIVR-V. On receipt of the application of alteration with the requisite fees as prescribed under rule 23 , the Registering Authority shall cause to inspect the same and shall submit the application along with the particulars in Form GIVR-IV to the Headquarters.

(2) While inspecting after scrutinizing the plans of alteration if the Registering Authority or his authorised officials are of the opinion that:

(a) Where the alterations proposed or carried out are not substantial that is to say that they do not materially affect the dimensions or tonnage of the vessel or its carrying capacity, the Registering Authority shall enter the alteration in the Book of registration and also in the certificate of registration of the vessel duly signed and sealed.

(b) Where the alterations materially affect the dimensions or tonnage or machinery or carrying capacity of the vessel, the Registering Authority shall proceed to register the vessel anew maintaining the same official number, mark and name and liability on the vessel.

(c) Thereafter the Registering Authority shall forward to the Headquarters the copy of the altered certificate in Form GIVR-IV or in case of registering it anew, intimate closure of the old registry to the applicant as well as to Headquarters and at the time of issuance of new certificate, the same procedure shall be followed as being followed in case of new registration under these rules.

(d) It shall be obligatory on the part of the owner to ensure that his vessel does not ply without a valid certificate of registration.

15. **Transfer of Port of Registry:-** (1) If all the persons having an interest in the vessel whether as an owner or mortgagor, desire that the registry of the vessel shall be transferred from one port to another, they may apply in Form GIVR-VI to the Registering Authority of the intended Port and the Port where the vessel is registered together with fees as prescribed under rule 23.

(2) The Registering Authority of the port where the vessel is registered after satisfying itself that the proposed transfer is not objectionable, transmit together with all requisite documents, particulars of the vessel and the encumbrances, if any, on the vessel, to the Registering Authority of the intended port together with no objection certificate from the mortgagor or hypothecator.

(3) The Registering Authority at the intended port of registry after satisfying itself regarding name, suitability and other requirements, assign new official number, name and code letters of the port to the vessel and intimate the owner in Form GIVR-II(A).

(4) After ascertaining that the new official number, mark, name, port of registry, draft marks other particulars, as mentioned in Form GIVR-II (A), correspond with the provisions of these rules and the Act and after receipt of fees, shall issue a fresh certificate of registration and communicate to the Registering Authority of the original port, the particulars official number and date of its new registry together with cancelled copy of registration of the old registration. A copy of which shall be communicated to Head-quarter.

(5) On receipt of documents mentioned in sub-rule (4) the Registering Authority of the original port of registry shall close the registration of the vessel and communicate the same to the Headquarter.

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(6) If the vessel is not registered with the Registering Authority appointed by the Government under Inland Vessel Act, but is registered elsewhere, the owner at the time of applying for change of transfer of port, shall produce together with all other relevant documents prescribed under sub-rule [2] of rule 4, a no objection certificate from the Government where the vessel has been registered.

16. **Declaration of Ownership-** Every declaration of ownership shall be, in Form GIVR-I(B), made before a Registering Authority of inland vessel or a Magistrate of First Class or a Justice of Peace or a Commissioner of Oath.

17. **Transfer of Ownership of the Vessel or Interest therein:-** (1) The owner or in the case of joint ownership, all the owners or a company or a corporate body or a co-operative society who are registered owner of a vessel desiring to transfer, the ownership of vessel or any interest therein, shall apply to the Registering Authority of the Port, in Form GIVR-VI A , for permission to do so together with fees as prescribed under rule 23.

(2) The Registering Authority shall, after making such inquiry as it thinks necessary, regarding valid and authenticated sale deed, transfer of change of interest, mortgage or hypothecation together with validity and authenticity of the applicant etc., shall proceed to implement transfer of ownership or interest, as the case may be, and enter the same in the certificate of registration and Book of registration. Such changes shall be communicated to the Headquarters, within a period of one month.

18. **Transfer of ownership by operation of law:-** (1) Where the title to a vessel devolves on any person by operation of law, such person shall apply to Registering Authority together with requisite authenticated and valid documents specifying the circumstances in which he has acquired title to the vessel and also produce evidence of such acquisition.

(2) If the Registering Authority after making such inquiry as he thinks fit and on receipt of fees as prescribed under rule 23, is satisfied about claim of the applicant, he shall proceed to register the particulars of the change of ownership in book of registration and also endorse in the Certificate of Registration of the vessel. Such changes shall be communicated to the Headquarters within a period of one month,

19. **Vessels owned by minors:-** (1) Where a vessel is registered in the name of a person as the guardian of a minor, the ownership of the vessel shall remain with the minor and on attainment of adulthood, together with the proof of adulthood, he or she may apply to the Registering Authority for affecting the change in the entries in the book of registration and in the Certificate of Registration of the vessel.

(2) The Registering Authority after satisfying itself that all the documents are authenticated and valid, shall issue a fresh Certificate of Registration in Form GIVR-III, in the name of the applicant, after canceling earlier certificate of registration and shall make suitable entry in the book of registration and furnish a copy in Form GIVR- IV, to the Headquarters within a period of one month.

(3) The fees as prescribed under rule 23 shall be levied for the changes made in the entries in the book of registration and for the issuance of new Certificate of Registration of the vessel.

20. **Issue of Duplicate Copies of Certificate-** (1) Every application for a duplicate copy of certificate shall be accompanied by a declaration regarding the circumstances and proof in which the original certificate was destroyed, lost, misled, mutilated or defaced.

(2) The Registering Authority may, on application made by the owner, in Form GIVR-VIII, in this behalf, issue a duplicate copy of certificate of registration clearly marked "duplicate" in red ink, if he is satisfied that the original certificate of registration has been destroyed, lost, misled, mutilated or defaced.

(3) Where a duplicate copy of certificate of registration has been obtained on the ground that the original has been lost or destroyed and if such an original certificate of registration is subsequently found or received by the owner, he or she shall forthwith surrender the original certificate of registration to the Registering Authority who shall cancel the same.

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(4) A duplicate copy of certificate of registration shall not be granted on the ground that the original has been mutilated or defaced unless the mutilated or defaced certificate is surrendered to the Registering Authority.

(5) If the owner, after obtaining a duplicate copy, continues to use original certificate of registration subsequently, he or she shall be liable for punitive punishment as the penalty laid under the Schedule appended to these rules.

(6) A fee as prescribed under rule 23 shall be levied for issuance of duplicate certificate of registration.

21. **Central Register to be maintained in the Headquarters, Port of Registry-wise:-**

(1) The Head of the Department in the Headquarter office who shall also have a designation as Chief Registering Authority, shall maintain central register in the Headquarter office, Port of registry-wise in Form GIVR HQ-I.

(2) On receipt of communication from the Registering Authority of the Port, in Form GIVR-IV or by any other means, the Central Registering Authority shall cause the entries received from the Registering Authority of the port to be entered in the Central Register under his signature and shall acknowledge the same to the Port of Registering Authority.

22. **Inspection of Book of Registration and supply of copies:-** (1) The Book of Registration, at the discretion of the Registering Authority, may be open for inspection, during office hours, to any bonafide person, on application in writing, made in this behalf, stating the purpose therein , and on payment of fees as prescribed under rule 23.

(2) A certified copy of any entry from the Book of Registration, may be granted by the Registering Authority to any bonafide person on application made for the purpose stating the purpose therein, and on payment of fees as prescribed under rule 23.

(3) The Registering Authority shall maintain a separate book of account, describing the date, name of the applicant, purpose of inspection and information provided or copy issued, fees received, receipt number and other necessary particulars.

23. ***Fees*** :- A quantum of fees shall be levied under these rules at the rate and for the purpose specified in the Schedule appended to these rules. The Registering Authority shall initiate no action on any application received without payment of the prescribed fees.

24. **Registration of existing vessels registered in other States :-** (1) The owner of every inland vessel or coasting vessel registered before the commencement of these rules and plying within the limits of ports of Gujarat, shall within a period of six months of commencement of these rules, shall apply to the Registering Authority with all requisite documents, prescribed fees and with the certificate of existing registry for the purpose of re-registering the vessel under these rules.

(2) No application for the purpose of registering of existing vessels plying at the ports of Gujarat shall be entertained by the Registering Authority on the expiry of a period of six months prescribed under sub-rule (1).

(3) If for the application received within the specified time, as prescribed in sub-rule (1), for any reasons whatsoever, the registering procedure has not been completed within the prescribed period, the Registering Authority at its discretion, may grant a further period of three months for completion of procedure. No further extension shall be granted after the expiry of such extension.

(4) The Registering Authority shall enter in the Book of registration, the particulars of such vessels together with any outstanding mortgage or any interest therein and also assign a new official number and name and the port of registry to the vessel (if necessary).

(5) The official number and name assigned under sub-rule (4) shall be carved and painted in the same manner as prescribed in rule 8.

(6) The fees for registration shall be levied as prescribed under rule 23.

25. **Inspection. Detention of Vessel and right to Appeal:-** (1) The Registering Authority or any officer authorised by the Government not below the rank of Registering Authority or surveyor, may, for the purpose of inspection, enter the vessel, at any time during day or night.

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(2) If on inspection, it is found that the vessel does not comply, with the provisions of the act or rules or instructions issued from time to time, the inspecting authority, may detain the vessel from plying, by issuing a provisional detention order in writing to the owner or master, assigning the reasons for such detention, under intimation to Registering Authority, Port, customs, surveying authority and Headquarters, in Form GIVR-IX.

(3) The owner or master may approach the inspecting authority against the order of detention, if they are ready to comply with the instructions if any, or redress the shortcomings mentioned in the provisional detention order.

(4) On satisfactory compliance of the instructions or redressal of shortcomings, mentioned in the provisional detention order, by the owner or master of the vessel, the detaining authority may release the vessel by a written order revoking the provisional detention order, under intimation to Registering Authority, Port, customs, surveying authority and Headquarters.

(5) On receipt of such provisional detention order, the owner or master shall have right to appeal in writing to the Headquarters within a period of ten days from the receipt of the provisional detention order.

(6) On receipt an appeal against provisional detention order and after giving a reasonable opportunity of being heard to the parties. The appellate authority may pass an appropriate order, in Form GIVRA HQ-II, under intimation to the detaining authority and the authorities mentioned in sub-rule (2).

26. **Suspension of Certificate of Registration** (1) The Registering Authority may suspend, for such period and subject to such conditions as it thinks fit, the certificate of registration of an inland vessel, even if the vessel is registered at any other port and if it has reason to believe that since granting of certificate of registration the vessel has become unfit to ply in inland waters.

(2) The vessel is said to be "unfit" within the meaning of these rules when the materials of which she is made of, her construction, the qualification of the master. the umber, description and qualification of the crew including officers, the weight, description and stowage of cargo and ballast, the condition of her hull and equipment, boilers and machineries are not such as to render her in every respect fit for the proposed of voyage or service.

(3) Where the registration of an inland vessel is suspended under sub-rule (1), for a period of not less than one month, the Registering Authority ordering the suspension shall, if it is not the Registering Authority of that vessel, inform the Registering Authority at the place where the 'vessel is registered, giving the facts and reasons of such suspension.

(4) The Registering Authority suspending the certificate shall cause the owner or master of the vessel to surrender the certificate of registration so suspended, and if the suspending authority is not the Registering Authority of that vessel, on receipt of suspended certificate of registration, cause this certificate of registration delivered to the Registering Authority at the port at which the vessel is registered.

(5) A certificate of registration surrendered under sub-rule (4), shall be returned to the owner when the order suspending the certificate has been rescinded or has ceased to operate. The Registering Authority of the port at which the vessel is registered, shall be intimated the rescission or cessation of operation, of the order of suspending the certificate of registration.

27. **Cancellation of Certificate of Registration.-** (1) If an inland vessel has been destroyed or has been rendered permanently unfit for service, the owner of the vessel shall as soon as practicable, report the fact to the Registering Authority of the port where the vessel is registered along with the certificate of registration and shall apply for cancellation of the registration of the vessel.

(2) The Registering Authority on receipt of report or application under sub-rule (1), after verification shall have the certificate of registration cancelled and charge the fees as prescribed under rule 23.

(3) On cancellation of certificate of registration under sub-rule (2), the Registering Authority shall enter the particulars in the book of registration accordingly and show in red ink the closure of registry. The Registering Authority shall inform the same to the Headquarters, within a period of one month.

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(4) The Registering Authority may at any time require that any inland vessel plying within the limits of its jurisdiction may be inspected by them or by such authority as the Government may, by general or special order appoint in this behalf and, if as a result of such an inspection and its report, the Registering Authority is satisfied that the vessel is in such a condition that it is unfit to ply in inland waters, after giving the owner of the vessel an opportunity of being heard, cancel the registration of the vessel and require the owner thereof to surrender the certificate of registration forthwith to Registering Authority and shall enter the particulars in the book of registration and inform the Headquarters as prescribed under sub-rule(3).

28. **Penalties:-** Whoever commits a breach of any provisions made under these rules, shall be punishable for such breach in accordance with the provisions for penalties of such breaches as provided under chapter VII of the Act, as if he has committed such breach under the Act.

29. **Registering Authority Deemed to be Public Servant:-** Every person appointed as a Registering Authority under these rules shall, for the purpose of registration of vessels, be deemed to be a public servant within the meaning of the Indian Penal Code.

30. **Preservation of Documents:-**All documents relating to registration submitted by the parties shall be preserved by the Registering Authority. These documents may be produced to the Judicial Authority in case of a court case or may be required for other purposes.

31 **Declaration of Port of Registration**

In exercise of the powers conferred by Clauses (a) and (b) of Sub-section (1) of section 19B of the Inland Vessel Act-1917 (1 of 1917), the Government of Gujarat hereby declares Magdalla (Surat), Bharuch, Bhavnagar, Jafrabad, Veraval, Porbandar, Okha, Jamnagar, Navlakhi and Mandvi ports to be the places of registry and appoints Port Officers of Magdalla (Surat), Bharuch, Bhavnagar, Jafrabad, Veraval, Porabandar, Okha, Jamnagar, Navlakhi and Mandvi Group of ports respectively as registering authorities at the said places for the purpose of the said Act.

32. **Declaration of Examiners**

In exercise of the powers conferred by Section-20 of the Inland Vessel Act-1917 (1 of 1917), and of all other powers enabling it in that behalf the Government of Gujarat, hereby appoints Marine Engineer (MEO Class-I) and Chief Nautical Officer (F.G.M.) Gujarat Maritime Board, to be the examiners for the purpose of examining the qualifications of persons desirous to obtain a certificate of competency to act as Master or Sarang or Engineers or Engine Drivers as the case may be onboard on inland mechanically propelled vessels.

33. **Declaration of Survey Authorities under the Gujarat Inland Vessels (Survey, Construction and Safety) Rules - 2008**

In exercise of the powers conferred by clauses (a) and (b) of sub-section-1 of section-4 of the Inland Vessels Act-1917 and in supersession of all previous notifications in so far as they relate to the declarations of the places of survey within the territories under its administrations and appointment of surveyors in this behalf, the Government of Gujarat, hereby declares:

(i) The places of Magdalla (Surat), Bharuch, Bhavnagar, Jafrabad, Veraval, Porbandar, Okha Jamnagar, Navlakhi and Mandvi Ports to be the places of survey and.

(ii) Appoints Marine Engineer (MEO Class-I) and Master Mariner (FGM) of Gujarat Maritime Board, as the Surveyors at the said places for the purpose of the said act.

34. **Delegation of Powers**

In exercise of the powers conferred by sub-section (4) of section 9 of the Inland Vessel Act-1917 (1 of 1917), the Government of Gujarat, hereby delegates to the Vice-Chairman & Chief Executive Officer, Gujarat Maritime Board, all the functions assigned to the State Government under the said section in respect of grant of certificates of survey, hence adopts " Model Rules " for Inland Vessels prepared by a committee under the chairmanship of Chairman, Inland Water Authority and Government of Gujarat empowers Gujarat Maritime Board for suitable modifications in future as recommended by them.

FORM NO. G1VR-1
GOVERNMENT OF GUJARAT

Application for the registration of inland vessel by an individual or partnership firm
(see clause (a) of sub-rule (1) of rule 4)
{ Under Section-19D of Inland Vessel Act-1917(1 of 1917) }

To,
The Registering Authority at Port of

Sir,

I/We being the owner of the Inland Vessel hereby request that the said vessel may please be registered at the Port of

2. I/We agree to pay such fees as may be levied under the rules.

3. The particulars are as under :-

(1) Owner(s) full name:

(2) Owner(s) full address:

(3) Owner(s) occupation:

(4) In case of individual: Proof of citizenship

(5) In case of partnership firm: Partnership deed and Proof of citizenship of all partners;

(6) Three copies of construction plans prepared by Naval Architect or approved by Classification Society:

(7) Builders certificate or declaration by owner stating builders certificate will be submitted on completion of construction before certificate of registration can be issued:

(8) Type of vessel: Cargo/Chemical Carrier/Gas Carrier/ Liquid Carrier/Tug/Passenger:

(9) Machinery's; details like make, model number, horsepower etc. together with certificate of approval:

(10) Year and place of built.

(11) Expected number of crew:

(12) Any other relevant particulars :

Signature and Seal of the Owner.

Date :
Place :

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FORM NO. GIVR-L (A)
GOVERNMENT OF GUJARAT

Application for the registration of inland vessel by a company or co-operative society
(see clause (b) of sub-rule (1) of rule 4)
{ Under Section - 19D of Inland Vessel Act-I917 (1 of 1917) }

To,
The Registering Authority at Port of

Sir,

I/We being the owner of the Inland Vessel hereby request that the said vessel may please be registered at the Port of

2. I/We agree to pay such fees as may be levied under the Gujarat Inland Vessels Registration Rules, 2008.

3. The particulars are as under :-

(1) Owner(s) full name:

(2) Owner(s) full address:

(3) Owner(s) occupation:

(4) Proof of citizenship:

(5) In case of company registration certificate from registration of company under companies act together with M.O.U.:

(6) In case of co-operative society, Certificate from Gujarat Co-operative Society Registering authority together with M.O.U.:

(7) Three copies of construction plans prepared by Naval Architect or approved by classification society:

(8) Builders certificate or declaration by owner stating builders certificate will be submitted on completion of construction before certificate of registration can be issued:

(9) Type of vessel: Cargo/Chemical Carrier/Gas Carrier/Liquid Carrier/Tug/Passenger:

(10) Machinery's; details like make, model number, horsepower etc. together with certificate of approval:

(11) Year and place of built:

(12) Expected number of crew:

(13) Any other relevant particulars :

Signature and Seal of the Owner.

Date:
Place:

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FORM NO. GIVR- 1(B)

GOVERNMENT OF GUJARAT

Declaration of ownership for registration of inland vessel
(see clause (a) of sub-rule (2) of rule 4 and rule 22)

I/We subject of the State of having a permanent address at and having principal of place of business at hereby declare that my vessel named is being built by at in the year or was purchased by me/us from on at for Rs

2. I/We the sole owner of the said vessel further declare that the vessel is intended to ply in the inland waters of State of Gujarat particularly in the port of for the purpose of

Place : Signature of the owner and seal
Dale :

Made and subscribed on the day of Year By above named in the presence of

Signature and Seal of
Registering Authority/Justice of Peace/Magistrate of 1st class/Commissioner of Oath.

FORM NO. GIVR - II
Government of Gujarat

Appointment of date and time of inspection of the inland vessels intended to be registered by the Registering Authority.
(see rule 7)

From:

The Registering Authority
Inland Vessels
Port of.....

To,
The Owner of
Shri/Smt

Sir,

I have to acknowledge the receipt of an application dated for registration of above named vessel under Inland Vessel Act-1917 (1 of 1917) . Please be informed that the official of this Department may proceed on board the said vessel for inspection at on

2. You are requested to provide to the said officials, all reasonable facilities and furnish all necessary information in respect to the said vessel, its machinery, any part thereof , equipment etc. for the purpose of registration of the vessel under the Gujarat Inland Vessels Registration Rules, 2007.

Yours faithfully,
Registering Authority

No.

Date:

Place:

FORM No. GIVR-II (A)
Government of Gujarat
Carving and Marking Note for Registration of Inland Vessel
(See rule 8)
(Under section-19H of Inland Vessel Act-1917 [1 of 1917])

No. Date:

Sub: Registration of Official Number

To,

Please refer to your letter No dated

1. The name proposed by you for has been approved by this Department. Official Number..... has been allotted to the said vessel.

2. It is requested that the above mentioned sanctioned name and official number may please be carved and painted on both the bows of the vessel and on a prominent place of super structure.

3. The carving and painting should be in Hindi, Gujarati and English.

4. Each letter should be of at least, 20 cms height and 15 cms. Breadth.

 (In case your vessel is very small and the size of lettering is inconvenient. Registering Authority may please be contacted so that a smaller lettering may be sanctioned).

5. On the stem of the vessel Port of Registry should be carved and painted in similar manner.

6. The draft marks forward and aft, port and star board sides should also be similarly carved and painted.

7. On completion of carving and marking, the Registering Authority may kindly be contacted for inspection.

Yours faithfully,

Registering Authority of Inland Vessels.

Approved name official number Port of Registry and Draft Marks of the above vessel has been inspected by undersigned at on and has been found satisfactory and complying with the rules.

Signature of the Inspecting Authority.

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FORM NO.GIVR - III
Government of Gujarat

Certificate of Registration
(see rule 10)
(Under Section 19F of the Inland Vessel Act, 1917 (1 of 1917) }

Official No..... Year Port of Registry

This is to certify that of has declared that subject of the Stale of And the owner of Called and the same was built at by of in the year

2. To the said vessel Official number has been duly granted under the Inland Vessel Act, 1917 at the port of

3. Particular of the vessel:-

(a) Length overall (in mtrs):
(b) Length (in mtrs):
(c) Breadth (in mtrs):
(d) Depth (in mtrs):
(e) Gross Tonnes:
(f) Registered Tonnes:
(g) Make of the engines:
(h) Model of the engine:
(i) Horse Power/Kilowatt per engine:
(j) Number of engines:
(k) Number of shafts:
(l) Estimated Speed:
(m) Type of vessel:
(n) Details of previous registration if any :

No :

Date :

Place :

Certified under my hand this day

Registering Authority

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FORM NO. GIVR-III (A)
Government of Gujarat

Temporary Certificate of Registration of Inland Vessel
(See rule 11)

Temporary Certificate under Inland Vessel Act, 1917 is granted to official number Port of Registry.....

Shri/Smt has declared that he/she is the subject of the Slate of..... and is/are the sole owner of Official Number which was built at by of in the year

This certificate shall remain valid for a maximum period of three months from the dale of issue of this certificate or for a period ending on date.....

This Temporary Certificate is issued pending preparation of the permanent certificate of registration and is subject to the conditions that it has to be surrendered by the owner before a permanent certificate of registration is granted to the vessel.

No.....
Date :
Place :

Certified under my hand this date

Registering Authority of Inland Vessels.

FORM No. G1VR-IV

Government of Gujarat
(See rule 12)

Book of Registration
(Under Section-19[C]of Inland Vessel Acl-1917(1 of 1917)}

Date of Registration: **Signature of Registering Authority**

1. Name of the vessel:
2. Official Number:
3. Registration Mark:
4. Name of the owner:
5. Address of the owner:
6. Description of vessel:
7. Length overall in mtrs:
8. Length in mtrs:
9. Breadth in mtrs:
10. Depth in mtrs:
11. Gross tonnage:
12. Registered Tonnage:
13. Make of the engine:
14. Model of the engine:
15. No. of engines:
16. No. of shafts:
17. Horse Power/Kilowatt per engine:
18. Total Propelling Horse Power:
19. Estimated speed:
20. Details of Auxiliary Engines:
21. Details of previous Registration if any:

Sr. No.	Name and Address of Mortgagor	Amount of Mortgage	Date and time of Registration of Mortgage	Signature of Registering Authority	Date of time of discharge of Mortgage	Signature of Registering Authority	Remarks
1	2	3	4	5	6	7	8

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FORM NO.G1VR-V
Government of Gujarat
(See rule 14)

Application for Registration of alteration or to issue a fresh certificate of registration.
(under section 19J of the Inland Vessel Act- 1917.)

Date :

To,
The Registering Authority
..... Port.

Sir,

I/We of being the owner of the Inland vessel bearing official number request you to be intimated that following alteration have been carried out on the above vessel on and between (here mention the period)

It is requested that a fresh Registration Certificate/bearing alteration may kindly be issued to undersigned. The fees amounting to Rs is paid by D/D/Challan No drawn on (name of the bank) dated is enclosed herewith.

Signature of the owner of vessel.

FORM NO.GIVR-VI
GOVERNMENT OF GUJARAT

APPLICATION FOR TRANSFER OF PORT OF REGISTRY
(See rule 15)

(under section 19K of the Inland Vessel Act, 1917.)

To,
The Registering Authority,
.....Port.

From:

Sir,

I/We are the owners of the Vessel Official No of Port, hereby request that the registry of the above mentioned vessel may please be transferred to the Registering Authority at Port, for the reasons mentioned below:-

.....

.....

.....

.....

It is required that a new official No. may please be allotted at your port of registry.

Yours faithfully,

FORM NO. GIVR-VI A

Government of Gujarat

Application For Transfer Of Ownership
(See rule 17)
(under sub-section 2 of section 19M of the Inland Vessel Act, 1917.)

To.
The Registering Authority,
..... Port.

Sir,

I/We have acquired Inland Vessel No named registered at I/We hereby request that the said Inland vessel may please be registered in my/our name and the certificate of registration amended accordingly.

I am enclosing along with this the following documents:-

1) Proof of citizenship and permanent residence:
2) Proof of partnership:
3) Citizenship of partners:
4) Registration certificate issued by Registrar of Companies
5) Proof of citizenship of director
6) Drawing made and signed by-Naval Architect showing the plans of construction Expansion, machinery, machinery layout, propeller shaft, steering, life saving, Fire fighting, light and sound signalling plans, communication equipments, wheel House, crew accommodation, pipeline.

*The order of the Government of (from which states the vessel has been presently registered) sanctioning the transfer and deed of sale in Form-IX duly executed are also enclosed.

The demand draft/treasury Challan for Rs. drawn on is enclosed herewith. The balance, if any, is payable by me/us.

Signature of the transferee.

I/We registered owner of Inland Vessel official number hereby submit that the Port of Registry..... or his authorised attorney have transferred the ownership of the above mentioned vessel to

Signature of transferee

* This portion does not apply in case the transfer of vessel is within the state of Gujarat.

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FORM NO.G1VR-VII

Government of Gujarat

Application for cancellation of Registration certificate
(See rule 27)
(Under section 19O of the Inland Vessels Act, of 1917)

To,
The Registering Authority
..... Port.

Sir,

I/We of being owner of Inland Vessel named..... bearing No registered at Port, request you that the registration of the said vessel may kindly be cancelled for the reasons that:-

(a) The vessel has been lost, inquiry has been conducted or being conducted at

(b) The vessel is damaged and broken beyond repairs.

(c) The vessel is very old and needs a very large amount of replacement of hull and machinery, Or

(d) Any other relevant reasons.

(For the reasons specified in clause (b) and (c) above the vessel at present is lying at and ready for inspection by any authority delegated by)

I /We am/are enclosing the certificate of Registration along with the fees payable by me/us.

Date:

Signature of the owner.

FORM NO.GIVR-VIII
Government of Gujarat
Intimation of loss, mutilation of the Certificate of Registration and application for a duplicate certificate
(See rule 20.)
(Under section 19 of the Inland Vessel Act, 1917)

To,

The Registering Authority,
..... Port,

Sir,

I/We of owner of the vessel Registration No. registered at hereby intimate that the original registration granted to the above vessel has been lost or mutilated and the vessel now requires a duplicate certificate of registration. The Police report of the lost certificate is enclosed herewith. I/We hereby undertake in case the registry of the vessel is found, the same shall be submitted to the authority without delay.

I/We hereby declare that to the best of my/our knowledge that the registration of the vessel has neither been suspended nor cancelled under any of the provisions of the Act or the rules made thereunder.

I/We hereby deposit the fees of Rs by DD / Challan No Dated

It is requested that the duplicate certificate of registration may kindly be issued.

Date

Signature of owner of vessel.

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FORM NO.GIVR-IX

GOVERNMENT OF GUJARAT

Provisional Detention Order
(See rule 25)

The Inland Vessel Official No. of Port was inspected by undersigned at on dated The vessel is hereby provisionally detained under power vested under sub-rule (2) of rule 25 of the Gujarat Inland Vessel Registration Rules, 2008 made under the Inland Vessels Act, 1917. The defects or shortcomings are shown in annexure issued along with this order.

2. The vessel is forbidden to ply in the Ports of Gujarat till further orders.

3. The master/owner has been issued copy of this order together with annexure on dt. at

OR

The master / owner has refused to accept the order and the order is pasted on the vessel on dt. in the presence of Whose signatures are appended below :

Signed
Officer empowered for carrying out inspection under rule 25 of the Gujarat Inland Vessel Registration Rules, 2008.

Copy with a request for needful action to:

1) The Registering Authority
2) The Surveying Authority
3) The Superintendent of Customs
4) The Port Officer
5) The Officer In-charge H.Q.

FORM NO.GIVRM-I

Issued by the Government of Gujarat

INSTRUMENT OF MORTGAGE
(TO BE EXECUTED BY INDIVIDUALS/JOINT OWNERS/PARTNERSHIP FIRMS)
(See Clause (a) of sub-rule (2) of rule 13)

I/We, the undersigned in consideration of the sum of Rupees..... this day let to me/us by permanently/having my/our principal place of business and my/our heirs executors or administrators covenant with the said firstly that I/We and or my/our heirs executors or administrators will pay to the said the said sum of rupees together with interest thereon at the rate of Percent per annum on the day of 200.... (year) and secondly that if the said principal sum is not paid on the said day, I/We or my/our heirs, executors or administrators, will during such time as the same or any part thereof remains unpaid, pay to the said interest on the whole or such part thereof as may for the time being remain unpaid, at the rate of percent per annum by equal half yearly payments on the Day of and day of in every year, and that for better securing to the said The payment in manner aforesaid of the said principal sum and interest I/we hereby mortgage to the said the Inland Vessel called official No Port of Registry..... Together with all her boats, appurtenances, etc. Lastly, I/we for myself/ourselves and my/our heirs, executors or administrators covenant with the said and his/their assignees that I / We have power to mortgage the said vessel in the manner aforesaid and the same is free from encumbrances save as appear by the Register of the said vessel.

Signature

Signed by the named in my presence

Signature
Designation

Seal of Office

Received the sum of rupees in discharge of the within written security dated this.....day of. year

Signed in my presence
Signature
Designation

Signature(s) of Mortgagee(s)

Seal of Office

FORM NO. GIVRM – II

Issued by the Government of Gujarat

INSTRUMENT OF MORTGAGE
(TO BE EXECUTED BY A COMPANY OR BODY CORPORATE OR CO-OPERATIVE SOCIETY)
(See Clause (b) of sub-rule (2) of rule 13)

We, the Company Limited, having our principal place of business at in consideration of the sum of rupees this day let to us by residing permanently / having principal place of business at do hereby for ourselves and our successors covenant with the said And his / their / its assigns firstly that we / our successors will pay to the said or its/ their assigns the said sum of rupees together with interest thereof at the rate of percent, per annum on the day of year, secondly that if the said principal sum is not paid on the said day, we or our successor will, during such time as the same or any part thereof remains unpaid pay to the said interest on the whole or such part there of as may be fore the time being remain unpaid at the rate of percent, per annum by equal half yearly payments on the Day of And day in every year; and that for better securing to the said the repayment in the manner aforesaid of the said principal sum and interest, we hereby mortgage to the said Port of Registry together with all her boats and other appurtenances, etc. Lastly we for ourselves and our successors covenant with the said and appurtenance etc. and that same is free from encumbrances save as appeared in the Register of the said vessel.

In witness whereof we have subscribed our name(s) and common seal this Day of year

Signed by the above named in my presence.

Signature
For and on behalf of

Signature
Designation

Seal of Office

Company's seal

Received that sum of rupees in discharge of the within mentioned security dated at this Day Year.

Signed in my presence

Signature
Designation

Signature(s) of Mortgagee(s)

Seal of Office.

FORM NO.GIVRA- HQ. I

(Central Register at H.Q)
(See rule 21)

Port of Registry : Designation of Registrar : name of vessel :

(1) (2) (3)

Official No. Name of the owner Previous Registry details if any :

(4) (5) (6)

Change in name / ownership : Yes / No.

(7)

Sr. No.	Particulars of events such as	Documents received from the Registrar			Dated signature of dealing	Dated signature of HQ of	Remarks
		(a) Document Received	(b) Number and date of letter	(c) Number, date and page No. of Inward Register			
1.	2.	3.(a)	3.(b)	3 (c)	4.	5.	6.

FORM NO. GIVRA HQ. II

Passing of order by Appellate Authority on appeal in case of the refusal of certificate of Registration

(See sub-rule (6) of rule 10)

From:
The Appellate Authority
.....

To,

Sub:

An appeal was received in this office on date against the order of Registrar of Inland Vessels at vide appeal No date

2. The applicant and the Registering Authority, both were given opportunity to be heard and present the case on date in this office.

3. After careful consideration and on the merits of the case, together with relevant rules, Act, this authority by the powers vested in him by rule of the Inland Vessel Rules, 2008 hereby passing the following order :

(1) The appeal stands rejected as per reasons mentioned in annexure.

OR

(2) The appeal stands on its merit and is accepted by this Authority and the Registering Authority is hereby directed :

(a) to register the vessel as per rules, or/and
(b) revoke the order of refusal of certificate of registration under intimation to this authority within a span of 15 days on the issuance of this order.

Signed and sealed on this date
Under my signature at
Date hours

CC: to: (1) The Applicant
(2) The Registering Authority

FORM No. GIVRA HQ. III
(See sub-rule (6) of rule 25)

From:
The Appellate Authority
.....

To.

Sub :

An appeal was received in this office on date against the order of Registrar of Inland Vessels at vide appeal No date

2. The applicant and the Registering Authority, both were given opportunity to be heard and present the case on date in this office.

3. After careful consideration and on the merits of the case, together with relevant rules. Act, this authority by the powers vested in him by rule of the Inland Vessel Rules, 2008 hereby passing the following order :

(3) The appeal stands rejected as per reasons mentioned in annexure.

OR

(4) The appeal stands on its merit and is accepted by this Authority and the Registering Authority is hereby directed :

(c) to register the vessel as per rules, or/and
(d) revoke the suspension order/cancellation of certificate of registration as the case may be under intimation to this authority within a span of 15 days on the issuance of this order or/and
(e) to revoke the detention order issued by date

Signed and sealed on this date
Under my signature at
Date hours

CC: to: (1) The Applicant
(2) The Registering Authority

SCHEDULE

Table of Fees

(see rule 23)

SI No.	Different purposes for which Fees is chargeable	Amount of Registration Fees (Rs.)
1.	For [mechanically propelled vessels] of less than 100 Tons	25
2.	For [mechanically propelled vessels] of less than 100 Tons and upto 200 Tons	40
3.	For [mechanically propelled vessels] of less than 200 Tons and upto 350 Tons	50
4.	For [mechanically propelled vessels] of less than 350 Tons and upto 700 Tons	60
5.	For [mechanically propelled vessels] of less than 700 Tons and upto 1000 Tons	80
6.	For [mechanically propelled vessels] of less than 1000 Tons and upto 1500 Tons	100
7.	For [mechanically propelled vessels] of less than 1500 Tons and upwards	120

By order and in the name of the Governor of Gujarat,

B. K. SINHA,
Additional Chief Secretary
Ports and Transport Department.

Government Central Press, Gandhinagar.

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The Gujarat Government Gazette

EXTRAORDINARY

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Separate paging is given to this part in order that it may be filed as a Separate Compilation.

PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

PORTS AND TRANSPORT DEPARTMENT

NOTIFICATION

Sachivalaya, Gandhinagar, 11th April, 2011.

INLAND VESSELS ACT, 1917

No. GPT/25/2011/GMB/102000/CS-8/GHI :- The following draft of a which is proposed to be issued under section 67 read with section 19 and 52 of the Inland Vessels Act, 1917 (I of 1917) is published as required by sub-section (I) of section 74 of the said Act, for the information of all persons likely to be affected thereby and notice is hereby given that the said draft of proposed rules will be taken into consideration by the Government of Gujarat on or after the expiry of thirty days from the date of its publication in the *Official Gazette*.

2. Any objection or suggestion which may be received by the Secretary, Ports and Transport Department, Sachivalaya, Gandhinagar, from any person with respect to the said draft before the expiry of the aforesaid period, will be considered by the Government.

DRAFT NOTIFICATION

No. GPT/25/2011/GMB/102000/CS-8/GHI :- In exercise of the powers conferred by section 67 read with sections 19 and 52 of the Inland Vessels Act, 1917 (I of 1917), the Government of Gujarat, hereby makes the following rules, namely :-

CHAPTER I

PRELIMINARY

1. **Short title, commencement and application,**— (1)These rules may be called the Gujarat Inland Vessels (Survey, Construction and Safety) Rules, 2011.

(2) (a) They shall apply to inland vessels and barges with steel hull as follows:-

(i) All Cargo/Passenger vessels of,
-length> 15(M),
Gross tonnage > 150,
Power of engine (s) > 100 bhp

(ii) Passenger vessels carrying 25 passengers or more,

(iii) Manned Barges of length > 15 (M),

(iv) Unmanned Barges of length > 30 (M);

(b) They shall not apply to,-

(i) Vessels of war and troop vessels,

(ii) Pleasure craft not engaged in any activity with pecuniary benefits,

(iii) Fishing vessels, and

(iv) Wooden vessels of primitive build.

2. **Definitions**.—In these rules, unless the context otherwise requires,-

(1) "accommodation spaces" means those spaces, corridors, lavatories, cabins, offices, hospitals, cinemas, games and hobbies rooms, pantries containing no cooking appliances and similar spaces;

(2) "Administration" means the Government of the State whose flag the vessel is entitled to fly;

(3) "amid vessels" means at the middle of the length ;

(4) "anniversary date" for the purposes of these rules, means the day and month of each year which corresponds to the date of expiry of the relevant certificate;

(5) "approved" means approved by the Administration;

(6) "auxiliary means of steering" means the equipment other than any part of the main steering gear necessary to steer the vessel in the event of failure of the main steering gear but not including the tiller, quadrant or components serving the same purpose;

(7) "barge" means a cargo vessel not propelled by mechanical means and includes manned and unmanned barges and pontoons but excludes accommodation barges;

(8) "Block Co-efficient or (Cb)" means,-

Formula : Cb = V/L * B * di

Where.-

V is the volume of the modules displacement of the vessel, excluding bossing, in a vessel with a metal shell and is the volume of displacement to the outer surface of the hull in a vessel with a shell of any other material, both taken at a moulded draught of di ;

di is 85 per cent of the least moulded depth;

L is the length as defined in this rule;

(9) "breadth or (B)" unless expressly provided otherwise, means the maximum breadth in meters of the vessel, measured amid vessels to the moulded line of the frame in a vessel with a metal shell and to the outer surface of the hull in a vessel with a shell of any other material;

(10) "bridge to bridge communications" means, safety communications between vessel from the position from which the vessels are normally navigated;

(11) "bulkhead deck" is the uppermost deck up to which the transverse watertight bulkheads are carried;

(12) "cargo vessel" is any vessel, which is not a passenger vessel;

(13). "cargo spaces" are all spaces used for cargo (including cargo oil tanks) and trunks to such spaces;

(14) "company" for the purpose of these rules, means the owner of the vessels or organization or person such as the manager or bare boat charter, who has assumed the responsibility for operation of the vessel from the vessels owner;

(15) "control stations" are those spaces in which the vessel's radio or main navigating equipment or the emergency source of power is located or where the fire recording or fire control equipment is centralized;

(16) "depth for freeboard or (D)" means the moulded depth amid-vessels, plus the thickness of the freeboard deck stringer plate, where fitted, plus T* (1-5) -, L if the exposed freeboard deck is sheathed,

Where.-

L is the length as defined
T is the mean thickness of the exposed sheathing clear of deck openings, and
S is the total length of superstructures as defines in definition 71 of this regulation;

(17) "detection" is the determination of the location of survivors or survival craft;

(18) "existing vessel" means a vessel which is not a new vessel; and a vessel whose keel has been laid and 90% construction has been completed;

(19) "emergency source of electrical power" is a source of electrical power, intended to supply the emergency switchboard in the event of failure of the supply from the main source of electrical power;

(20) "fishing vessel" resources; is a vessel used for catching fish, or other living resources;

(21) " flush deck vessel " means a vessel which has no superstructure on the freeboard deck;

(22) "freeboard assigned" is the distance measured vertically downwards amidvessels from the upper edge of the deck line to the lower edge of the related toad line;

(23) "freeboard deck" means, normally, the uppermost complete deck exposed to weather and sea, which has permanent means of closing all openings in the weather part thereof, and below which all openings in the sides of the vessel are fitted with permanent means of watertight closing. In a vessel having a discontinuous of that line parallel to the upper part of the deck and continuation of that line parallel to the upper part of the deck is taken as the freeboard deck. At the option of the owner and subject to the approval of the administration, a lower deck may be designated as the freeboard deck provided it is a complete and permanent deck continuous in a fore and aft direction at least between the machinery space and peak bulkheads and continuous athwart vessels, When this lower deck is stepped the lowest line of the deck and the continuation of that line parallel to the upper part of the deck is designated as the freeboard deck, the part of the hull which extends above the freeboard deck is treated as superstructure so far as concerns the

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application of the conditions of assignment and the calculation of freeboard. It is from this deck that the freeboard is calculated;

(24) For this purpose of assignment of free board mark, vessels areas of operation will be categorized in to 3 Zones, namely:-

Zone-I: Where maximum significant wave height does not exceed 2.0 meters,
Zone-2: Where maximum significant wave height does not exceed 1.2 meters,
Zone-3: Where maximum significant wave height does not exceed 0.6 meters;

(25) "significant wave height" means the average of heights of 10% of the total number of waves having the greatest heights measured between wave trough and wave crest, observed over a short period;

(26) "Gross tonnage" means the tonnage as measured in accordance with the International Tonnage Convention, 1969. And for vessels of less than 24 metres in length in accordance with the relevant national rule;

(27) "inflatable appliance" is an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is normally kept un-inflated until ready for use; inflate

(28) "launching appliance or arrangement" is a means of transferring a survival craft or rescue boat from its stowed position safely to the water;

(29) "length or (L)", measured in metres, is 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the fore-side of the stem to the axis of the rudder stock on that waterline, whichever is greater. In vessels designed with a rake of keel the waterline on which this is measured shall be parallel to the designed waterline;

(30) "locating" means the finding of vessels, aircraft, units or person in distress;

(31) "low flame spread" means that the surface thus described will adequately restrict the spread of flame, this being determined to the satisfaction of the Administration by an established test procedure;

(32) "machinery space " is to be taken as extending from the moulded base line to the margin line and between the extreme main transverse watertight bulkhead, bounding the spaces containing the main and auxiliary propulsion machinery serving the needs of propulsion, In the case of unusual arrangements, the Administration may define the limits of the machinery spaces;

(33) "machinery space of category A" means those spaces and trunks to such spaces, which contain: -

(a) internal combustion machinery used for main propulsion,

(b) internal combustion machinery used for purposes other than main propulsion where such machinery has in the aggregate a total power output of not less 375 KW, or

(c) any oil-fired boiler or oil fuel unit;

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(34) "main source of electrical power" means a source intended to supply electrical power to the main switchboard for distribution to all services necessary for maintaining the vessel in normal operational and habitable condition;

(35) "main steering gear" means the machinery, rudder actuators, steering gear power units, if any, and ancillary equipment and the means of applying torque to the rudder stock (e.g. tiller or quadrant) necessary for effecting movement of the rudder for the purpose of steering the vessels under normal service conditions;

(36) "main switch board" means a switchboard which is directly supplied by the main source of electrical power and is intended to distribute electrical energy to the vessel's services;

(37) "maximum ahead service speed" means the greatest speed which the vessel is designed to maintain in service at the deepest draught;

(38) "maximum astern speed" means the speed which it is estimated the vessel can attain at the designed maximum astern power at deepest draught;

(39) "moulded depth" means.- "

(a) the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side. In wood and composite vessels the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the mid vessels section is of a hallow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel,

(b) in vessels having rounded gunwales, it shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design,

(c) where the freeboard deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, it shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part;

(40) "new vessel" means a vessel the keel of which is laid and construction completed is less than 90% on or after the date of adoption of the Rules by each Administration;

(41) "non-combustible material" means a material which neither burns nor gives off flammable vapours in sufficient quality for self-ignition when "heated to approximately 7500 C , this being determined to the satisfaction of the Administration by an established test procedure. Any other material is a combustible material;

(42) "passenger" means every person other than,-

(a) the master and the members of the crew or other persons employed or engaged in any capacity on board a vessel on the business of that vessels; and

(b) a child under one year of age;

(43) "passenger vessel " means a vessel which carries more than 25 passengers;

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(44) "perpendiculars" means the forward and after perpendiculars taken at the forward and after ends of the length (L). The forward perpendicular shall coincide with the foreside of the stem on the waterline on which the length is measured;

(45) "public spaces" means those portions of the accommodation which are used as halls, dining rooms, lounges and similar permanently enclosed spaces;

(46) "retro-reflective material" means a material which reflects in the opposite direction a beam of light directed on it;

(47) "service spaces" are those spaces which are used for galleys, pantries containing cooking appliances, stockers, mail and specie rooms, store-rooms, workshops other than the forming part of the machinery spaces, and similar spaces and trunks to such spaces;

(48) "steel or other equivalent material" wherever the words "steel or other equivalent material" occur, "equivalent material" means any non- combustible material which, by itself or due to insulation provided, has structural and integrity properties equivalent to steel at the end of the applicable exposure to the standard fire test (e.g. aluminum alloy with appropriate insulation);

(49) "superstructure" means a decked structure on the freeboard deck, extending from side to side of the vessels or with the side plating not being inboard of the shell plating more than 4 per cent of the breadth. A raised quarter deck is regarded as a superstructure;

(50) "tanker" means a cargo vessel constructed or adopted for the carriage in bulk of liquid cargoes of an inflammable nature;

(51) 'trunk "means a decked structure on the freeboard deck set in form the sides of vessel for more than 4% of the breadth and having no doors, windows or other similar openings in the outer bulkheads;

(52) "watertight" means capable of preventing the passage of water through the structure in any direction under a head of water for which the surrounding structure is designed;

(53) "weather-light" means that in any sea condition water will not penetrate into the vessel;

(54) "wooden vessel of primitive build" means a without deck wooden vessel of traditional build.

3. **Exemptions.**— (1) The Administration may, where it considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific provisions of the rules unreasonable or unnecessary, exempt from those requirements to individual vessels or classes of vessels when engaged in such voyages.

(2) A vessel to which these rules are applicable, and which is not normally engaged on voyages but which in exceptional circumstance is required to undertake a single voyage may be exempted by the Administration from any of the requirements of these rules provided that it complies with such other requirements which are, in the opinion of the Administration, adequate for the intended voyage.

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(3) The Administration may exempt any vessel, which embodies features of a novel kind from any of the provisions of these rules the application of which might seriously impede research into development of such features and their incorporation in vessels. Any such vessel shall, however, comply with such safety requirements, which in the opinion of the Administration are adequate for the service for which it is intended and are such as to ensure the overall safety of the vessel.

4. **Equivalents.**— Where these rules require that a particular fitting, material, appliance or type thereof shall be fitted or carried in a vessel, or that particular provision shall be made, the administration may allow any fitting material, appliances or type thereof to be fitted or carried or any other provision to be made in that vessel, if it is satisfied by trails or otherwise that such fitting, material, appliance, apparatus or type thereof is at least as effective as that required by these rules.

5. **Force majeure.**—**(1)** A vessel which is not subject to the provisions of these rules at the time of its departure on any voyage shall not be subject to such provisions on account of any deviation from its intended voyage due to stress of weather or any other cause leading to force majeure.

(2) In applying the provision of these rules, the Administration shall give due consideration to any deviation or delay caused to any vessel owing to stress of weather, or any other cause leading force majeure.

6. **Standards.**— (l)The construction, installation, structural strength, fittings, material, appliances and apparatus unless expressly provided by these rules, shall be as per the recognised standards.

(2) In addition to the requirements and standards referred to in these rules other applicable requirements and standards stipulated by other statutory bodies and standards may also be applied.

7. **Repairs, alternations, modifications of major character.** — (1) The repairs, alternations and modifications of a major character and out-fitting related thereto on the existing vessels shall meet the requirements prescribed for a new vessel to such extent as the Administration deems reasonable and practicable. The owner shall inform the Administration of the proposed alternations and modifications before such alternations and modifications are carried out.

(2) For the purpose of these rules, the following repairs, alternations and modifications shall be recognized as being of major character, namely:-

(a) any changes that substantially alters the dimensions of the vessel,
(b) any changes that substantially increase a vessel's service life, or
(c) any conversions that alters the functional aspects of the vessel.

8. **Carriage of cargoes. -** the vessels and barges carrying dangerous cargoes specified below shall comply with the applicable requirements of chapter VI & VII of SOLAS,

(a) grain cargo in bulk,
(b) oil in bulk,
(c) dangerous cargoes in packaged form or in bulk,
(d) liquid chemicals in bulk, and

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(e) liquefied gases in bulk.

Explanation:- 'SOLAS' stands for the International Convention for the Safety of life at Sea, 1974.

CHAPTER - II

SURVEYS AND CERTIFICATES

9. General aspect of inspections, surveys and markings.— (1) The inspection, survey and marking of vessels, so far as regards the enforcement of these rules and the granting of exemptions there from, shall be carried out by the surveyors of the Administration. The Administration may, however, entrust the inspections, marking and the surveys either to surveyors nominated for the purpose or to recognized organizations/classification societies e.g. IRS, L.R.S. BVS etc.

(2) The Administration nominating surveyors or recognized organizations to conduct inspections and surveys under sub-rule (1) shall empower any nominated surveyor or recognised organization to carry out inspections, surveys and repairs to a vessel..

(3) When a nominated surveyor or recognized organization determines that the condition of the vessel or its equipment does not correspond substantially with the particulars of the certificate or is such that the vessel is not fit to proceed on voyage without danger to the vessel, or persons on board, such surveyors or recognized organizations shall immediately ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken the relevant certificate shall be withdrawn immediately; and if a vessel is in the waters of another State, the appropriate authorities of the State shall also be notified immediately. When an officer of the Administration, a nominated surveyor or a recognized organization has notified the Administration of that State, the Government of that State shall give such officer, surveyor or the recognized organization necessary assistance to carry out their obligations under these rules. When applicable, the Government of such State shall ensure that the vessel does not sail until it can proceed on voyage, or leave port only for the purpose of proceeding to the appropriate repair yard without danger to the vessel or persons on board.

(4) In any case, the Administration shall fully guarantee the completeness and efficiency of the inspections and surveys, and shall undertake to ensure that necessary arrangements to satisfy this obligation are established.

9. Surveys.- (1) All Vessels to which these rules apply shall be subject to surveys. The general nature and the periodicity of such surveys shall be as specified below, namely:-

(a) an initial survey, including an inspection of the outside of the vessel's bottom, before the vessels is put in service;

(b) a renewal survey at intervals specified by the Administration but not exceeding 2 years for the vessels operating in Zone 1 and 5 years for the vessels operating in Zone 2 and 3, except where sub-rule (6) of rule 10 is applicable;

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(c) a periodical intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the certificate which shall take the place in one of the annual surveys specified in (d);

(d) an additional survey within three months before or after each anniversary date of the certificate;

(e) an additional survey as the occasion arises;

(f) one inspection of the vessel's hull, including of the outside of the vessel's bottom, within a two year period shall be carried out for vessels operating in Zone-1 and one inspection within a period of 5 years for vessels operating in Zone 2 and 3.

(2) The surveys referred to in sub-rule (1) shall be carried out as follows, namely:-

(a) The initial survey before the vessel is put into service shall be such as to ensure that arrangements, equipment and systems specified below comply fully with the requirements of the rules and the workmanship of all such parts and equipment is in all respects satisfactory :-

(i) the arrangements, materials and scantlings of the structure;

(ii) boilers and other pressure vessels;

(iii) main and auxiliary machinery associated control systems; including steering gear and associated control system;

(iv) fire safety systems and appliances, life-saving appliances and arrangements, navigational equipment, nautical publications, means of embarkation pitots;

(v) radio installation including those used in life-saving appliances;

(vi) arrangements for the control of discharge of oil and for the retention of oil board;

(vii) provision of the lights, shapes, means of making sound signals & distress signals as required by these rules;

(viii) the arrangements, materials and scantlings fully comply with the requirements of chapter 13 & 14 relating to the conditions for assignment of load lines and freeboard.

(b) The renewal survey shall include an inspection of the equipments referred to in sub- rule (1) to ensure that it complies with the relevant requirements of these rules.

(c) The periodical survey shall include an inspection with tests where necessary equipment to ensure that the requirements relating to the life- saving appliance, fire appliances and the light and sound signals are complied with and that they are in satisfactory condition and are fit for the service for which the vessels is intended. All certificates, records books, operating manuals and other instructions and documents specified shall be checked for their adequacy.

(d) The intermediate survey shall include an inspection of items relating to CHAPTERS III to VII and CHAPTER XV of these rules to ensure that they are in a satisfactory condition and fit for the service for which the vessel is intended. When inspecting items of hull and machinery for detailed examination, due account shall be taken of any continuous survey schemes adopted.

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(e) The annual survey shall include an inspection to ensure that,-

(i) the equipment referred to in sub-rule (1) remains satisfactory for the service for which the vessel is intended;

(ii) alterations in design have not been made to the hull or superstructures, which may affect the calculations determining the position of the bad lines;

(iii) the fittings and appliances for the protection of openings, guard rails, freeing ports and means of access to crew's quarters are maintained in an effective condition.

(f) An additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations whenever an accident occurs to a vessels or a defect is discovered, either of which affects the safety of the vessel or whenever any important repair or renewals are made. The survey shall be such as to ensure that the repairs and renewals are effectively made.

(g) A minimum of one inspection of the outside of the vessel's bottom during any five year period except where so authorised by the Administration. The inspection of the outside of the vessel's bottom and the survey of related items inspected at the same time shall be such as to ensure that they remain satisfactory for the service for which the vessels is intended. Preferably the inspection shall coincide with the renewal survey

(3) The periodical/intermediate and the annual surveys referred to in these rules shall be endorsed on the Certificate.

(4) Where a vessel complies with these rules partially and complies with the relevant provisions of the rules, Administration shall ensure that the rules compliance with such prior to issue of any certificate under the regulation compliance with such provisions of the rules is assured.

10. **Maintenance of condition after survey.**- (1) The condition of the vessel and its equipment shall be maintained by the master and company to conform with the provisions of these rules to ensure that the vessel in all respects will remain fit to proceed on voyage without danger to the vessel, persons on board or the marine environment.

(2) After any survey of the vessel under this chapter is completed, no change shall be made in the structural arrangements, machinery, equipment and other items covered by the survey, without the sanction of the administration.

(3) Whenever an accident occurs to the vessel or defect is discovered, either of which affects the safety or the efficiency or completeness of its life-saving appliances or other equipment, a request shall be made immediately to the Administration responsible for issuing the relevant certificate for a survey, as may be required by rule 9, to be carried out as soon as practicable.

11. **Issue or endorsements of certificates.**- (1) Subject to the provisions of the rules of this chapter a certificate shall be issued after an initial or renewal survey specified in sub-rule (2) of rule 9, to a vessel which complies with the relevant requirements of the rules. In

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any case the Administration shall ensure the completeness of the inspection prior to the issue of any certificates.

(2) The certificate issued under the provision of sub-rule (1) shall be supplemented by the record of the equipment.

(3) When an exemption is granted by the Administration to a vessel under and in accordance with the provisions of the rules an Exemption Certificate shall be issued in addition to the certificate prescribed in the rules. The Exemption Certificate shall be attached to the certificate to which it refers.

(4) The certificate referred to in this rule shall be issued or endorsed either by Administration or by any person or organization authorized by it. In any case, the administration shall assume full responsibility for the certificate.

12. **Issue or endorsement of certificates by another Government.**- The Administration applying the provisions of the rules may, at the request of another Administration similarly applying the provisions of the rules, cause a vessel to be surveyed and if satisfied that the requirements of the rules are complied with shall issue or authorize the issue of the certificates to the vessel where appropriate, endorse or authorize the endorsement of the certificate in accordance with the requirements of the rules. Any certificate so issued shall contain a statement to the effect that it has been issued at the request of the Government of the State, where the vessel is registered.

13. **Duration and validity of certificates.**- (1) A Certificate shall be issued for a period as specified by the Administration. Such period shall not exceed 2 year for vessels operating in Zone 1; and 5 years for vessels operating in Zone 2 and 3. It is felt that exemption period shall be limited for 6 months for Zone 1 vessel and one year for Zones 2 and 3 vessels.

(2) Notwithstanding the requirements of sub-rule (1), when the renewal survey is completed within three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 2 year and 5 years from the date of expiry of the existing certificate, as the case may be.

(3) When the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding two years and five years from the date of expiry of the existing certificate, as the case may be.

(4) When the renewal survey is completed more than three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding two years and five years from the date of completion of the renewal survey, as the case may be.

(5) If the certificate is issued for a period of less than 2 years and 5 years, the Administration may extend the validity of the certificate beyond the expiry date to the maximum period specified in sub-rule (1), provided that the applicable surveys referred to in rule 9 for the issue of the certificate for 2 years and 5 years are carried out.

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(6) If a renewal survey has been completed and the new certificate cannot be issued or placed on board the vessel before the expiry date of the existing certificate, the person or the organization authorised by the Administration may endorse the existing certificate and such certificate shall be accepted as valid for a further period which shall not exceed one month from the expiry date.

(7) If a vessel at the time when the certificate expires is on voyage, the Administration may extend the period of validity of the certificate but this extension shall be granted only for the purpose of allowing the vessel to complete its voyage to the place in which it is to be surveyed, and only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than one month, and a vessel to which such an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by the virtue of such extension to leave that port without a new certificate. Where the renewal survey is completed the new certificate shall be valid to a date not exceeding 2 years, or as the case may be, 5 years., from the date of expiry of the existing certificate before the extension was granted.

(8) In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate shall be valid: a date not exceeding five years from the date of the completion of the renewal survey.

(9) If an annual or periodical or intermediate survey is completed before the period specified in the relevant rule then.-

(a) the anniversary date shown on the relevant certificate shall be amended by endorsement to a date which shall not be more than three months later than the date on which the survey was completed;
(b) the subsequent annual or periodical survey required by the relevant rules shall be completed at the intervals prescribed by the rules using the new anniversary date;
(c) the expiry date may remain unchanged provided one or more annual or periodical surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by the relevant rules are not exceeded.

(10) A certificate issued under this chapter shall cease to be valid in any of the following cases, namely:-

(a) if the relevant surveys and inspections are not completed within the perms specified in this chapter.
(b) if the certificate is not endorsed in accordance with this chapter;
(c) upon transfer of the vessel to another state.

(11) Upon transfer of the vessel to another State a new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the vessel is in compliance with the requirements of the rules.

(12) In the case of transfer of owner of a vessel between the parties, if requested within three months after such transfer, the Government of the State where the vessel was formerly registered shall, as soon as possible, transmit to the present Administration the

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copies of the certificates carried by the vessel before the transfer and, if available, copies of the relevant-survey reports.

14. **Form of certificates.- (1)** The certificate the exemption certificate and the record of equipment shall be drawn up in a form which shall contain the following, namely :-

(i) The time of validity of the certificate,

(ii) The number of passengers the vessel is fit to carry (inside cabins and on decks) in case of passenger vessels;

(iii) The nature and quantum of the cargo the vessel is fit to carry; and

(iv) Any other prescribed particulars.

(2) If the language used is not English, the text shall include a translation into that language.

15. **Availability of certificates.-** The certificates issued under this chapter shall be readily available on board for examination at all times.

16. **Control.-** (1) Every vessel when in a port of another State is subject to control by officers duly authorized by such State Government, in so far as this control is directed towards verifying that the certificate issues under these rules is valid.

(2) Such certificate, if valid, shall be accepted unless there are clear grounds for believing that the vessel or its equipment does not correspond substantially with the particulars of the certificate.

(3) The enforcement of control by the authorities, in case of vessels plying across different State jurisdictions, shall be carried out in the spirit of the provisions under the Act.

(4) In the event of any intervention being necessary the concerned registering authority of the State Government shall be informed.

(5) When exercising control all possible efforts shall be made to avoid a vessel being unduly delayed or detained. If a vessel is unduly delayed – or detained it shall be entitled to compensation for any toss or damage suffered.

CHAPTER III

CONSTRUCTION AND EQUIPMENT

17. **Construction And Equipment. (1)** The International Regulation on design and construction of vessels stipulates the requirement based on representative wave height in which the vessels are expected to operate. This representative wave height is related to the maximum significant wave height. It is categorized into following three zones, namely:-

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(i) Zone -1 where significant wave height does not exceed 2.0 mtr,
(ii) Zone -2 where significant wave height does not exceed 1 -2 mtr,
(iii) Zone - 3 where significant wave height does not exceed 0.6 mtr.

(2) The zone wise categorizations is adopted for the vessels to be designed and built exclusively for operation in a specified zone, as well as allow a vessel's operation across two or more zones.

(3) Notwithstanding anything contained in any rules or regulations made by the. Central Government in this regard, the parameter applicable for design and construction of vessels shall be as specified in Annexure I.

CHAPTER IV

STABILITY REQUIREMENTS

18. **Intact Stability, Sub-Division And Damage Stability Requirements.**-

1. The vessels propelled by mechanical means shall comply with the applicable intact stability requirements as specified in Annexure II.

2. The intact stability or subdivision and damage stability requirements, as appropriate, for barges carrying under-deck cargoes or having machinery installations or service spaces shall be .determined by the Administration, having regard to, the design and arrangements of cargo spaces, machinery, equipment, deck houses or superstructures.

19. **Inclining Tests And Stability Information.**- (1) Every vessel shall undergo an inclining test upon its completion and the actual displacement and position of the centre of gravity shall be determined for the light vessels condition.

(2) Where alterations are made to a vessel affecting its light condition and the position of the centre of gravity, the vessel shall, if the Administration considers thus necessary, be re-inclined and the stability information amended accordingly.

(3) The Administration may allow the inclining test of an individual vessel to be dispensed with provided that reliable stability information for the exempted vessel can be obtained from basic data available from the inclining test of a sister vessel and that during the construction the same weights of components and weight distribution is observed.

(4) The Administration may dispense with the inclining test of a cargo vessel or a class of vessels especially designed for the carriage of liquids or ore in bulk, when reference to existing data for similar vessel clearly indicates that due to proportions and arrangements more than sufficient transverse metacentric height will be available in all probable loading conditions.

(5) The stability information approved by the Administration shall be supplied to vessels propelled by mechanical means to enable the master to assess with ease and certainty the stability of the vessel under various operating conditions, such information shall include

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specific instructions to the master warning him of those operating conditions which could adversely-affect-either-stability or the trim of the vessel.

(6) In particular, the information recommended in Annexure II shall be included as appropriate. A copy of the stability information shall be submitted to the Administration.

(7) The approved stability information shall be kept on board; readily accessible at all times and inspected at the periodical surveys of the vessel to ensure that it has been approved and the condition of the vessel since its approval has not changed.

(8) Where alterations are made to a vessel affecting its stability, calculations shall be prepared and submitted to the Administration for approval. Such revised information shall be supplied to the master and the superseded information removed from the vessel.

(9) The guidance for conducting Inclining Experiment shall be as specified in Annexure-III.

20. **Bilge Pumping Arrangements**.-(1) An efficient bilge pumping arrangement shall be provided which under all practical conditions shall be capable of pumping from and draining any watertight compartment other than a space permanently appropriated for the carriage of fresh water, water ballast, oil fuel or liquid cargoes for which other efficient means for pumping are provided. Where the Administration is satisfied that the safety of the vessels is not impaired the bilge pumping arrangements may be dispensed with in any particular compartment and unmanned barges without machinery spaces.

(2) The arrangement of the bilge and ballast pumping system shall be such as to prevent the possibility of water passing from outside and from water ballast spaces into the cargo and machinery spaces, or from one compartment to another.

(3) All distribution 'boxes and manually operated valves in connection with the bilge arrangements shall be in positions, which are accessible under ordinary circumstances.

(4) At least two bilge pumps connected to the main bilge system shall be provided, one of which may be driven by the propulsion machinery. The total capacity of the required main fire pump referred to in rule 26 of these rules.

(5) Sanitary, ballast and general service pumps provided with suitable connections for bilge suction may be accepted as independent power bilge pumps.

(6) A bilge ejector in combination with an independently driven high pressure sea- water pump may be installed, provided .this arrangement is to the satisfaction of the Administration.

(7) A bilge pipes shall not be led through fuel oil, ballast or double bottom tanks, unless of heavy gauge steel construction.

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CHAPTER V

MACHINERY INSTALLATION

21. **Machinery Installation** Notwithstanding anything contained in any rules or regulations made by the Central Government in this regard, the requirement for the installation of machinery shall be as specified in Annexure IV:

Provided that the provisions of this rule shall not apply to unmanned barges.

CHAPTER VI

ELECTRICAL INSTALLATION

22. **Electrical Installation**.- Notwithstanding anything contained in any rules or regulations made by the Central Government in this regard, the requirements for electrical installation shall be as specified in Annexure V.

CHAPTER VII

FIRE PROTECTION AND FIRE EXTINCTION

23. **Application**.- (1) Unless expressly provided otherwise this chapter shall apply to all vessels propelled by mechanical means and manned barges.
(2) The vessels above 500 gross tons shall comply with the requirements of M.S.(Fire Fighting Appliances) rules as applicable to vessels on coastal voyages.

24. **Fire pumps**.- (1) Every vessel of 150 gross tons and above shall be provided with at least one independent power-operated fire pump, capable of delivering a jet of water as required by rule 25. In vessels of below 150 gross tons a hand operated fire pump is to be provided capable of delivering a jet of water as required by rule 25.

(2) Where two main fire pumps are provided, the capacity of one of the two shall not be less than 40% of their total capacity.

(3) The sanitary, bilge, ballast or general service pumps may be accepted as fire pumps, provided that they are not normally used for pumping oil and that if they are subject to occasional duty for the transfer or pumping of oil fuel, suitable change-over arrangements are fitted.

(4) Every fire pump shall be arranged to draw water directly from the sea and discharge into a fixed fire main, if any.

(5) The centrifugal pumps or other pumps connected to the fire main through which back flow could occur shall be fitted with non-return valves.

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(6) Where the fire pumps are capable of developing a pressure exceeding the design pressure of the fire main, water service pipes, hydrants and hoses, relief valves shall be fitted. These valves shall be so placed and adjusted as to prevent excessive pressure in any part of the fire main system.

(7) The location and arrangement of pumps required for the provision of water for other fire extinguishing systems required by this chapter, their sources of power and their controls shall be installed outside the space or spaces protected by such systems and shall be so arranged that a fire in the space or spaces protected will not put any such system out of action.

(8) For the locations and arrangements of pumps the following shall be taken into account, namely:-

(a) if a fire in any one compartment can put all the fire pumps out of action, there shall be an alternate means to extinguish the fire;

(b) An emergency hand operated fire pump shall be fitted in an accessible position outside the compartment and positioned in a safe place outside the engine room and above the freeboard deck;

(c) The emergency fire pump, sea suction and other valves shall be operable from outside the compartment containing the main fire pump and in an position not likely to be cut off by fire in that compartment.

25. **Fire Mains, Water Service Pipes And Fire Hydrants.**- In every vessel required to carry a fire pump, with water service pipes, hydrants and fire hoses so arranged that at least one powerful jet of water may be directed to any part of the vessel. Hoses shall not be less than 32 mm dia.

26. **Fire Hoses And Nozzles.**- (I) Every vessel shall be provided with a minimum of two fire hoses.

(2) Where hydrants are required in any machinery spaces, each hydrant shall be provided with a fire hose. Where practicable fire hoses shall be connected to the hydrants in such machinery spaces.

(3) Notwithstanding the requirement of sub-rules (1) and (2), the Administration may increase the required number of fire hoses so as to ensure that hoses in sufficient number are available and accessible at all times, having regard to the type of vessel and the nature of trade in which the vessels is engaged.

(4) A single length of fire hose shall not exceed 20 mm.

(5) The fire hoses shall be oil-resistant and of approved material.

(6) The fire hoses of unlined canvas shall have a diameter of not less than 64 mm.

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(7) Unless one fire house and nozzle is provided for each hydrant, there shall be complete interchangeability of fire hose coupling or nozzles.

(8) The fire hoses provided in compliance with this regulation shall not be used for any purpose other than fire fighting or testing of the fire appliances.

(9) Every fire hose shall be provided with approved nozzles and the necessary couplings.

(10) The nozzle shall meet the following requirements, namely:-

(a) the nozzle sizes shall be 12 mm, 16 mm, 19 mm or as near thereto as possible. The larger diameter nozzles may be permitted at the discretion of the Administration;

(b) for accommodation and services spaces, a nozzle size greater than 12 mm need not be used;

(c) for machinery spaces and exterior locations, the nozzle size shall be such as to obtain the maximum discharge possible from the required jets at the pressure specified in regulation 3.1 from the smallest pump, provided that a nozzle size greater that 19 mm need not be used.

(11) In tankers and in machinery spaces of category A the nozzles provided for fire hoses shall be of an approved dual-purpose type (i.e spray/jet type) incorporating a shutoff.

27. **Portable Fire Extinguishers General Requirements.-** (1) All fire extinguishers shall be approved types and designs.

(2) The capacity of required portable fluid extinguishers shall be not more than 13.5 liters and not less than 9 liters.

(3) The capacity of the required portable carbon dioxide extinguishers, the portable mechanical foam extinguishers and the portable dry powder fire extinguishers shall be at least equivalent to that of a 9 liters fluid extinguisher

(4) All required portable fire extinguishers shall not exceed 23 kg in weight in a fully charged condition and shall be at least as portable as 13.5 liters fluid fire extinguisher

(5) The spare charges shall be provided for every required portable fire extinguisher provided in compliance with the Rules, except that for each such fire extinguisher which is of a type that cannot readily be recharged while the vessels is at enroute an additional fire extinguisher of the same type, or its equivalent, shall be provided in lieu of a spare charge.

(6) The fire extinguishers containing an extinguishing medium which, in the opinion of the Administration, either by itself or under expected conditions of use off toxic gases in such quantities as to endanger persons shall not be permitted.

(7) Fire extinguishers shall be periodically examined and subjected to following tests, namely:-

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(a) The condition of the charges of extinguishers other than carbon dioxide extinguishers shall be checked annually. If on checking there is any indication of deterioration the charges shall be renewed and, in any case, at least every four years. A record of the annual check is to be fixed to each fire extinguisher;

(b) The carbon dioxide extinguisher and gas propellant cartridges of other extinguishers shall be examined externally for corrosion and for loss of content annually. They shall be recharged or renewed if the loss of gas by weight exceeds 10% of the original charge a stamped on the bottles or cartridge, or have corroded excessively externally;

(c) All portable fire extinguishers, other than carbon dioxide extinguishers, shall be tested by hydraulic pressure once every four years and the date of such test legibly marked on the extinguisher;

(d) The new carbon dioxide extinguishers, which do not require to be recharged, shall be tested by hydraulic pressure twenty years after manufacture" and thereafter every five years;

(e) The carbon dioxide extinguishers, which require recharging, shall be pressure tested before being recharged if four years elapsed since the last hydraulic test was carried out.

(8) One of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space.

(9) The halon fire extinguishers shall not be used.

(10) Each fire extinguisher shall as far as it is practicable be clearly marked on the front with label of durable material containing the following minimum information in English or in the official language as may be specified by the Administration, namely:-

(a) name of manufacturer, year of manufacture and serial number,
(b) type of fire for which the extinguisher is suitable,
(c) type and quantity of extinguishing medium,
(d) approval details,
(e) pictorial and legible operating instructions,
(f) intervals for recharging,
(g) temperature range over which the extinguisher will satisfactorily,
(h) test pressure, and
(i) date last tested.

28. **Portable fire extinguishers to he carried in accommodation spaces, services spaces and control stations**.- **(1)** In every vessel there shall be provided a sufficient number of approved portable fire extinguishers to ensure that at least one extinguisher

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will be readily available for use in any part of accommodation spaces, service space, and control stations. At least three fire extinguishers shall be provided in such vessel. The arrangements of such fire extinguishers shall be to the satisfaction of the Administration.

(2) In every vessel, where in the opinion of the Administration, electrical installations fitted in accommodation, service and control stations constitute hazard of fire or explosion, additional fire extinguishers suitable for extinguishing electrical fires shall be provided.

(3) (a) The fire buckets are to be provided one per each member of the crew but need not exceed 20. At least 50% of the buckets are to be provided with lanyards,
(b) At least two fire buckets shall be provided which shall be of a material, which is not readily flammable. They shall be painted red, clearly marked with the word **'FIRE'** and provided with lanyards of sufficient length, having regard to the size of the vessel,
(c) The capacity of each of the fire buckets referred to in this part shall be at least nine liters,
(d) The fire buckets provided in compliance with this regulation shall not be used for any other purpose than extinguishing fire.

29. **Fire extinguishing systems in machinery spaces.**- (1) The machinery spaces containing internal combustion type machinery having a total power output of less than 750 KW shall at least be provided with,-
(a) at least two portable fire extinguishers suitable for extinguishing oil fires, and
(b) one sand box with scoop suitable for a quantity of sand not less than 0.075 cum.
(c) for vessels of length 30 meters" and above, a non-portable foam extinguisher of 45 liters is to be provided.

(2) The machinery spaces containing electrical installations shall be provided with one or more fire extinguishers suitable for extinguishing electrical fire, as deemed necessary by the Administration, having regard to the fire hazards of electrical origin. One or more of the fire extinguishers required by this rule may be included in the fire extinguishers required.

(3) Where, in the opinion of the Administration a fire hazard exists in any machinery space for which no specific provision for fire-extinguishing appliances are prescribed in sub-rules (1) and (2), there shall be provided in, or adjacent to, that space a number of approved portable fire extinguishers or other means of fire extinction to the satisfaction of the Administration.

30. **Fireman's outfit.**- (1) Every passenger vessel having sleeping accommodation for passengers shall be provided with a fireman's outfit.

(2) A fireman's outfit shall consists of personal equipment comprising.-

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(a) a protective clothing of material to protect the skin from the heat radiating from the fire and from burns and scalding by steam. The outer surface shall be water-resistant,

(b) boots and gloves of rubber or other electrically non-conducting material,

(c) a rigid helmet providing effective protection against impact,

(d) an electric safety lamp (hand lantern) of an approved type with a minimum burning period of three hours;

(e) an axe to the satisfaction of the Administration, and

(f) a breathing apparatus of an approved type.

(3) **The breathing apparatus may be either. -**

(a) a smoke helmet or smoke mask which shall be provided with a suitable air pump and a length of air hose sufficient to reach from the open deck, well clear of hatch or doorway, to any part of the holds or machinery spaces. If in order to comply with this subparagraph, an air hose exceeding 36 meters in length would be necessary, a self-contained breathing apparatus shall be substituted or provided in addition as determined by the Administration; or

(b) a self-contained compressed-air-operated breathing apparatus, the volume of air contained in the cylinders of which shall be at least 1200 liters, or other self- contained breathing apparatus which shall be capable of functioning for at least 30 minutes. A number of spare charges, suitable for use with the apparatus provided, shall be available on board to the satisfaction of the Administration.

(4) For each breathing apparatus a fire proof lifeline of sufficient length and strength shall be provided capable of being attached by means of a snap hook to the harness of the apparatus or to a separate belt in order to prevent the breathing apparatus becoming detached when the lifeline is operated.

(5) The Administration may require additional sets of personal equipments and breathing apparatus, having due regard to the size and type of the vessels.

(6) The fireman's outfits or sets of personal equipment shall be so stored as to be easily accessible and ready for use and, where more than one fireman's outfits or more than one set of personal equipment is carried, they shall be stored in widely separated positions.

31. **Fireman's axe**.- (1). Every vessel shall be provided with at least one fireman's axe in an easily accessible location outside the machinery, accommodation and service spaces.

32. **Fire control plan**.- (1) In vessels having machinery spaces of category 'A' there shall be provided a permanently exhibited fire control plan or equivalent to the satisfaction of the Administration.

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(2) In all such vessels, fire control plans shall be kept up-to-date. Description in such plans shall be in the official language as prescribed by the Administration and, if required, in the English language.

(3) In addition, instructions concerning the maintenance and operation of all the equipment and installations on board for the fighting and containment of fire shall be kept under one cover, readily available in an accessible position.

33. **Acceptance of substitutes.**- Where in this chapter a type of appliance, apparatus, extinguishing medium or arrangement is specified, any other type of appliance may be allowed provided the Administration is satisfied that it is not less efficient.

CHAPTER VIII

FIRE SAFETY MEASURES

34. **General application.**- (1) This chapter applies to vessels propelled by mechanical means and to manned barges, which are provided with machinery spaces of category A to maintain its normal habitable and operational condition.

(2) The vessels and manned barges which are provided machinery spaces other than machinery spaces of category 'A' shall comply with the provisions of this chapter to the satisfaction of the Administration.

35. **Structural fire protection.**- (I) The hull, superstructures, structural bulkheads, decks and deckhouses of Vessels propelled by mechanical means shall be constructed of steel or other equivalent material.

(2) The bulkhead and decks separating the machinery spaces of category A from control stations, corridors, accommodations spaces, stairways, service spaces and cargo spaces shall be so constructed as to be capable of preventing the spread of fire to the unexposed side.

(3) The interior .stairways below the weather deck shall be of steel or other material having acceptable fire resisting properties.

(4) The insulation materials in accommodation spaces, service spaces, control stations and machinery spaces except domestic refrigeration compartments, shall be non-combustible materials, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have qualities of resistance to the propagation of flame to the satisfaction of Administration.

(5) All exposed surfaces in corridors and stairways enclosures and surfaces including grounds in concealed or in accessible spaces in accommodation spaces, service spaces and control stations shall have low flame-spread characteristic.

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(6) The paints, varnishes and other finishes used on exposed interior surfaces shall not offer an undue fire hazard in the opinion of the administration and shall not be capable of producing excessive quantities of smoke.

(7) The primary deck coverings, if applied within accommodation spaces, service spaces and control stations shall be of approved materials, which will not readily ignite or give rise to toxic or explosive hazards at elevated temperatures, in existing vessels, the Administration may, in lieu of applying the requirements fully, apply such requirements only to deck coverings within accommodation spaces on decks forming the crown of machinery spaces and cargo spaces.

36. **Means of escape and control of ventilation.**- (1) The means of escape shall be provided as follows:-

(a) The stairways and ladders shall be so arranged as to provide means of escape from all accommodation spaces and from spaces in which the crew is normally employed, other than machinery spaces, ready means of escape to the open deck and thence to the survival craft;

(b) Two means of escape shall be provided from machinery spaces of category, A which shall be as widely separated as possible. The vertical escapes shall be by means of steel ladders or other means acceptable to the administration as suitable alternative. Where the size of such machinery spaces makes it impracticable, one of these means of escape may be dispensed with provided that the exit is to the satisfaction of the Administration.

(c) From machinery spaces other than those category 'A', escape routes shall be provided to the satisfaction of the Administration having regard to the nature and location of the spaces and whether persons are normally employed in such spaces;

(d) No dead-end corridors having a length of more than 7 meters shall be accepted. A dead-end corridor is a corridor or part of a corridor from which there is only one escape route;

(e) The width and continuity of the means of escape shall be to the satisfaction of the Administration.

(2) The following provisions shall apply to machinery spaces of category 'A' and where the Administration considers it desirable, to the other machinery spaces.-

(a) the means of control shall be provided for opening and closure of skylights, openings and closure of windows in machinery spaces boundaries, closure of openings in funnels, which "normally allow exhaust ventilation, and closure of ventilator dampers;

(b) The means of control shall be provided for permitting for release of smoke;

(c) The means of control shall be provided for stopping forces and induced draught fans, fuel oil transfer pumps, fuel oil unit pumps and to similar fuel pumps;

(d) The controls required in clause (j) and (k) shall be located outside the space concerned, where they may be cut off in the event of fire in the space they serve;

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(e) The number of skylights, doors, ventilators for natural ventilation, openings in funnel to permit exhaust ventilation and other openings to machinery spaces shall in accordance with the requirements of provisions of these rules;

(f) The skylights shall not contain glass panels. The skylights containing wire reinforced glass or toughened safety glass panels may be permitted provided that they are fitted with external shutters of steel or other equivalent material permanently attached. Suitable arrangements shall be made to permit the release of smoke in the event of fire from the spaces to be protected;

(g) The windows shall not be fitted in machinery spaces boundaries. This does not preclude the use of glass for windows in control rooms within the machinery space;

(h) The doors fitted in machinery space boundaries shall as far as practicable be equivalent in resisting fire to the divisions forming such boundaries. If such doors are not weather-light or water-tight they shall be self-dosing;

(i) The ventilation system of each of the following groups of spaces shall be entirely separated from each other. -Me arrangements of each ventilation system shall be such that fire in one space shall not readily spread to:

(i) machinery spaces;
(ii) galleys,
(iii) cargo spaces
(iv) accommodation spaces and control stations;

(j) The power ventilation of accommodation spaces, service spaces, cargo spaces, control stations and machinery spaces shall be capable of being stopped from an easily accessible position located outside the space being served. This position shall not be readily cut off in the event of fire in the space served. The means provided for stopping the power ventilation of machinery spaces shall be entirely separated from the means provided for stopping ventilation of other spaces;

(k) The main inlets and outlets of all ventilation systems shall be capable of being ctosed from outside the spaces being ventilated.

37. **Ventilation of tanks and cofferdams.**- (1) Subject to the provision of rule 44 and 45, all tanks, cofferdams and other enclosed spaces, where dangerous vapours and liable to be trapped, shall be provided with effective means for ventilation and access to the satisfaction of the Administration having regard to the intended services.

(2) In tankers and barges carrying flammable liquid cargo in bulk (other than crude oil or petroleum products of low flashpoint) there shall be provided for ventilation of cargo tanks a venting system shall be to the satisfaction of the Administration.

38. **Miscellaneous items.**- (1) Where bulkheads, decks ceilings or linings are penetrated for the passage of electric cables, pipes, trunks etc. or for the fitting of ventilation terminals, lighting fixtures and similar devices, or for girders, beams or other structural members, arrangements shall be made to ensure that the fire integrity is not impaired.

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(2) The Administration may permit the conveying of oil and combustible liquid through accommodation and service spaces provided that the pipes conveying oil or combustible liquids are of a material approved by the Administration having regard to the fire risk.

(3) The material readily rendered ineffective by heat shall not be used for overboard scuppers including sanitary discharges and other outlets which are close to the waterline and where the failure of the material in the event of fire would give rise to danger of flooding.

(4) The electric radiators, if. used, shall be fixed in position and so constructed as to reduce fire risks to a minimum. No such radiators shall be fitted with an element so exposed that clothing, curtains, or other similar materials can be scorched or set on fire by heat from the element or equivalent material.

(5) The cellulose nitrate based films shall not be used for cinematography installations.

(6) The paint stockers of more than 10 square-meters area shall be provided with adequate measures to control fire in such spaces to recognized standards.

(7) In spaces where penetration of oil products is possible, the surface of insulation shall be impervious to oil or oil vapour.

39. **Arrangements for fuel and other oil tanks.-** **(1)** The following limitations shall apply to the use of oil as fuel, namely:- (a) except as otherwise permitted by this sub-rule, no oil fuel with a flash point of less than 60 ° C shall be used;

(b) in emergency generators oil fuel with a flashpoint of not less than 43 ° C may be used;

(c) subject to such additional precautions as it may consider necessary and on condition that the ambient temperature of the space in which such oil fuel is stored or used shall not be allowed to rise to within 10 ° C below the flashpoint of the oil fuel, the Administration may permit the general use of oil fuel having a flashpoint of less than 60° C but not less than 43 ° C;

(d) in cargo vessels the use of fuel having a lower flashpoint than otherwise specified in this paragraph, for example crude oil, may be permitted provided that such fuel is not stored in any machinery space and subject to the approval by the Administration of the complete installations;

(e) the flashpoint of oils shall be determined by an approved closed cup method.

(2) In a vessel in which oil fuel is used, the arrangements for the storage, distribution and utilization of the oil fuel shall be such as to ensure the safety of the vessel and persons on board and shall at least comply with the following provisions.-

(a) as far as practicable, parts of the oil fuel system containing healed oil under pressure exceeding 0.18N/mm^2 shall not be placed in concealed position such that defects and

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leakage cannot readily be observed. The machinery spaces in way of such parts of the oil fuel system shall be adequately illuminated;

(b) as far as practicable, oil fuel tanks shall be part of the vessel's structure and shall be located outside machinery spaces of category 'A'. Where oil fuel tanks, other than double bottom tanks, are necessarily located adjacent to or within machinery spaces of category 'A', at least one of their vertical sides shall be contiguous to the machinery space boundaries, and shall preferably have a common boundary with the double bottom tanks where fitted, and the area of the tank boundary common with the machinery spaces shall be kept to a minimum. Where such tanks are situated within boundaries of machinery spaces of category 'A' they shall not contain oil fuel having a flashpoint of less than 60° C. In general the use of free standing oil fuel tanks shall be avoided. Where permitted, they shall be placed in an oil-tight spill tray of ample size having a suitable drain pipe leading to a safe place to the satisfaction of the Administration;

(c) every oil fuel pipe, which if damaged, would allow oil to escape from a storage, settling or daily service tank situated above the double bottom shall be fitted "with a stock or valve directly on the tank capable of being closed from a safe position outside the space concerned in the event of a fire occurring in the space in which such tanks are situated. Tanks of not more than 250 liters capacity need not comply with this clause;

(d) safe and efficient means of ascertaining the amount of oil fuel contained in any oil fuel tank shall be provided. Sounding pipes shall not terminate in any space where the risk of ignition of spillage from the sounding pipe might arise. In particular they shall not terminate in accommodation spaces. Other means of ascertaining the amount of oil fuel contained in any fuel tank may be permitted, provided that the failure of such means or overfilling of the tanks will not permit release of fuel. The Administration may permit the use of oil level gauges with flat glasses and self-closing valves between the gauges and fuel tanks. Cylindrical gauge glasses may also be permitted in free standing oil fuel tanks provided that they are suitably protected and fitted with self-dosing valves to the satisfaction of the administration;

(e) provisions shall be made to prevent over-pressure in any oil tank or in any part of the oil fuel system, including the filling pipes. Relief valves and air or over- flow pipes shall discharge to a position which in the opinion of the administration is safe. The open ends of air pipes shall be fitted with wire gauze.

(3) The arrangements for storage, distribution and utilization of oil used in pressure lubrication systems shall be such as to ensure the safety of the vessel and persons on board. The arrangements made in machinery spaces of category 'A' and whenever practicable in other machinery spaces shall at least comply with the provisions of clauses (a), (c) to (e) of sub-rule (2), as they apply to oil fuel arrangements, except that this does not preclude the use of slight-flow glasses in lubricating systems provided that they are shown by test to have a suitable degree of fire resistance.

(4) The arrangements for storage, distribution and utilization of other flammable oils employed under pressure in power transmission systems, control and activating systems and heating systems shall be such as to ensure the safety of vessels and persons on board.

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In locations where means of ignition are present, such arrangements shall at least comply with the provisions of clauses (d) and (e) of sub-rule (2), in respect of strength and construction.

40. **Spillage or leakage of oil.**- (1) No oil fuel tank or lubricating oil tank or any other flammable oil tank shall be situated where spillage or leakage there from can constitute a hazard by failing on heated surfaces. Precautions shall be taken to prevent any oil that may escape under pressure or oil leakage from any pump, filter, piping system or heat exchanger from coming into contact with healed surfaces or enter into machinery air intakes. Where necessary a suitable spill tray or gutter screen or .other suitable arrangement shall be provided to allow oil to drain to a safe place in the event spillage or leakage of oil from such an oil tank, machinery, equipment or system. The number of joints in piping systems shall be kept to a minimum practicable.

41. **Pipes and fittings.**- The pipes, fittings and valves handling fuel oil, lubrication oil and other flammable oils shall be of steel or other approved material, except that restricted use of flexible pipes shall be permissible in positions where the administration is satisfied that they are necessary. Such flexible pipes and end attachments shall be of approved fire-resisting materials of adequate strength and shall be constructed to the satisfaction of the administration.

42. **Use of forepeak tanks for carrying oil.**- The oil fuel, lubrication oil and other liquid substances flammable or harmful to the marine environment shall not be carried in forepeak tanks.

43. **Carriage of dangerous goods for vessel's use**- The vessels carrying dangerous goods, inclusive of materials hazardous when carried in bulk, are to comply with the requirements of Annexure VII.

44. **Fire projection arrangements in cargo spaces.**- (1) (a) Where vessels are engaged in the carriage of dangerous goods, a fixed gas fire-extinguishing system or a fire- extinguishing system which in the opinion of the Administration gives equivalent protection for the cargoes carried shall be provided in the cargo spaces,

(b) In addition to complying with the applicable requirements of clause (a), vessels Intended for the carriage of dangerous goods shall comply with the special requirements as applicable depending on the cargo carried, to the satisfaction of the administration.

(2) The Administration shall provide the vessel with an appropriate document as evidence of compliance relating to construction and equipment with the requirements of this rule.

45. **Fire safety measures for tankers** (l)(a) Unless expressly provided otherwise, This Regulation shall apply to tankers carrying crude oil and petroleum products having a flashpoint not exceeding 60° C (closed cup test), as determined by an approved flashpoint apparatus, and a Reid vapour pressure which is below atmospheric pressure and other liquid products having a similar fire hazard.

(b) Where liquid cargoes other than those referred to in sub-rule (1) which introduce additional fire hazards are intended to be carried, additional safety measures shall be required to the satisfaction of the Administration.

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(c) The takers carrying petroleum products having a flashpoint exceeding 60° C (closed cup test) as determined by an approved flashpoint apparatus shall comply with the provisions of rules 34 to 44, they shall be fitted with a fixed deck foam system which shall comply with the provisions of rule 39.

(2) The location and separation of machinery and accommodation spaces are to be as follows, namely:-

(a) The machinery spaces shall be positioned aft of cargo tanks and stop tanks; they shall also be situated aft of cargo pump-rooms and cofferdams, but not necessarily aft of the oil fuel bunker tanks. Any machinery space shall be isolated from cargo tanks .and stop tanks by cofferdams, cargo pump- rooms, oil fuel bunker tanks or ballast tanks. The pump-rooms containing pumps and their accessories for ballasting those spaces situated adjacent to cargo tanks and stop tanks and pumps for oil fuel transfer shall be considered as equivalent to a cargo pump-room within the context of this rule, provided that such pump-rooms have the same safety standard as that required for cargo pump-rooms;

(b) The accommodation spaces, main cargo control stations, control stations and service spaces (excluding isolated cargo handling gear stockers) shall be positioned aft of all cargo tanks, stop tanks, and spaces which isolate cargo or slop tanks from machinery spaces but not necessarily aft of the oil fuel bunker tanks and ballast tanks, but shall be arranged in such a way that a single failure of a deck or bulkhead shall not permit the entry of gas or fumes from the cargo tanks into an accommodation space, main cargo control stations, control station, or service spaces;

(c) Nevertheless, where deemed necessary, the Administration may permit accommodation spaces, main cargo control stations, control stations, and service spaces forward of the cargo tanks, slop tanks and spaces which isolate cargo and slop tanks from machinery spaces, but not necessarily forward of oil fuel bunker tanks or ballast tanks. The machinery spaces, other than those of category 'A', may be permitted forward of the cargo tanks and slop tanks provided they are isolated from the cargo tanks and slop tanks by cofferdams, cargo pump-rooms, oil fuel bunker tanks or ballast tanks. All of the above spaces shall be subject to an equivalent standard of safety and appropriate availability of fire-extinguishing arrangements being provided to the satisfaction of the Administration. The accommodation spaces, main cargo control spaces, control stations and service spaces shall be arranged in such a way that a single failure of a deck or bulkhead shall not permit the entry of gas or fumes from the cargo tanks into such spaces.

(d) The resources shall be provided to keep deck spills away from the accommodation and service areas. This may be accomplished by provision of a permanent continuous coming of a suitable height extending from side to side. Special consideration shall be given to the arrangements associated with stern loading.

(e) The exterior boundaries of superstructures and deckhouses enclosing accommodation and including any overhanging decks which support such accommodation shall be constructed of steel and insulated to "A-60" standard for

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the whole of the portions which face the cargo area and on the outward sides for a distance of 3 meters from the end boundary facing the cargo area.

(f) (i) except as permitted in sub-clause (ii) below, access doors, air inlets and openings to accommodation spaces, service spaces, control stations and machinery spaces shall not face the cargo area. They shall be located on the transverse bulkhead not facing the cargo area or on the outboard side of the superstructure or deckhouse at a distance of at least 4 percent of the length of the vessels but not less than 3 meters from the end of the superstructure or deckhouse facing the cargo area. This distance need not exceed 5 meters,
(ii) the wheelhouse doors and wheelhouse windows may be located within the limits specified in sub-clause (i), so long as they are designed to ensure that the wheelhouse can be made rapidly and efficiently gas and vapour tight,
(iii) the windows and side scuttles facing the cargo area and on the sides of the superstructures and deckhouses within the limits specified in sub-clause (i) shall be of the fixed, non-opening type, with suitable deadlights as may be deemed necessary by the Administration.

(3) The fire integrity of bulkheads and decks are to be as per structural fire protection requirements, as specified in rule 35.

(a) The skylights to cargo pump-rooms shall be of steel, shall not contain any glass and shall be capable of being closed from outside the pump-room,

(b) The fire integrity of bulkheads and decks, in addition to the requirements of rule 35, the bulkheads facing the cargo area are to comply with the clause (e) of sub-rule (2) and sub-clause (i) of clause (f) of sub-rule (2).

(4) The venting, purging, gas-freeing and ventilation requirements for the cargo tanks are to comply with the following requirements, namely:-

(I) (A) The venting systems of cargo tanks are to be entirely distinct from the air pipes of the other compartments of the vessel. The arrangements and position of openings in the cargo tank deck from which emission of flammable vapours can occur shall be such as to minimize the possibility of flammable vapours being admitted to enclosed spaces containing a source of ignition, or collecting in the vicinity of deck machinery and equipment which may constitute an ignition hazard. In accordance with this general principle the criteria in sub-rules (2) to (9) shall apply.

(B) The venting arrangements shall be so designed and operated as to ensure that neither pressure nor vacuum in cargo tanks shall exceed design parameters and be such as to provide for:

(a) the flow of the small volumes of vapour, air or inert gas mixtures caused by thermal variations in a cargo tank in all cases through pressure or vacuum valves; and
(b) the passage of large volumes of vapour, air or inert gas mixtures during cargo trading and ballasting, or during discharging,

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(c) a secondary means of allowing full flow relief of vapour, air or inert gas mixtures to prevent over-pressure or under pressure in the event of failure of the arrangements in clause (b). Alternatively, pressure sensors may be fitted in each tank protected by the arrangement required in clause (b), with a monitoring system in the vessel's cargo control room or the position from which cargo operations are normally carried out. Such monitoring equipment shall also provide an alarm facility which is activated by detection of over-pressure or under-pressure conditions within a tank.

(C) (a) The venting arrangements in each cargo tank may be independent or combined with other cargo tanks and may be incorporated into the inert gas piping;

(b) Where the arrangements are combined with other cargo tanks, either stop valves or other acceptable means shall be provided to isolate each cargo tank. Where stop valves are fitted, they shall be provided with stocking arrangements which shall be under the control of the responsible vessel's officer. There shall be a clear visual indication of the operational status of the valves or other acceptable means. Where tanks have been isolated, it shall be ensured that relevant isolating valves are opened before cargo trading or ballasting or discharging of those tanks is commenced. Any isolation must continue to permit the flow caused by thermal variations in a cargo tank in accordance with sub-clause (a) of clause (B);

(c) if cargo loading and ballasting or discharging of a cargo tank or cargo tank group is intended, which is isolated from a common venting system, that cargo tank or cargo tank group shall be fitted with a means for over-pressure or under-pressure protection as required in sub-clause (a) of clause (B);

(d) The venting arrangements shall be connected to the top of each cargo tank and shall be self-draining to the cargo tanks under all normal conditions of trim and list of the vessel. Where it may not be possible to provide self-draining lines, permanent arrangements shall be provided to drain the vent lines to a cargo tank;

(e) The venting system shall be provided with devices to prevent the passage of flame into the cargo tanks. The design, testing and locating of these devices shall comply with the requirements established by the Administration which shall contain at least the standards adopted by the organization;

(f) The provision shall be made to guard against liquid rising in the venting system to a height which would exceed the design head of cargo tanks. This shall be accomplished by high-level alarms or overflow control systems or other equivalent means, together with gauging devices and cargo tank filling procedures;

(g) The openings for pressure release required by sub-clause (b) of clause (B) shall,-

(i) have as great a height as is practicable above the cargo tank deck to obtain maximum dispersal of flammable vapours but in no case less than 2 meter above the cargo tank deck,

(ii) be arranged at the furthest distance practicable but not less than 5 meter from the nearest air intakes and openings to enclosed spaces containing a source of

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ignition and from deck machinery and equipment which may constitute an ignition hazard.

(h) the pressure or vacuum valves required by sub-clause (a) of clause (B) may be provided with a bypass arrangement when they are located in a vent main or masthead riser. Where such an arrangement is provided there shall be suitable indicators to show whether the bypass is open or closed;

(i) (i) the vent outlets for cargo loading, discharging and ballasting required by sub-clause (b) of clause (B)shall,-

(ia) permit the free flow of vapour mixtures, or

(ib) permit the throttling of the discharge of the vapour mixtures to achieve a velocity of not less than 30 miles,

(ii) be so arranged that the vapour mixture is discharged vertically upwards;

(iii) where the method is by free flow of vapour mixtures, be such that the outlet shall be not less than 6 meters above the cargo tank deck or fore and aft gangway if situated within 4 meters of the gangway and located not less than 10 meters measured horizontally from the nearest air intakes and openings to enclosed spaces containing a source of ignition and from deck machinery and equipment which may constitute an ignition hazard;

(iv) where the method is by high-velocity discharge, be located at a height not less than 2 m above the cargo tank deck and not less than 10 m measured horizontally from the nearest air intakes and openings to enclosed spaces containing a source of ignition and from deck machinery and equipment which may constitute an ignition hazard. These outlets shall be provided with high velocity devices of an approved type,

(v) be designed on the basis of the maximum designed loading rate multiplied by a factor of at least 1.25 to take account of gas evolution, in order to prevent the pressure in any cargo tank from exceeding the design pressure. The master shall be provided with information regarding the maximum permissible loading rate for each cargo tank and in the case of combined venting systems, for each group of cargo tanks;

(II) The arrangements for purging and/or gas-freeing shall be such as to minimize the hazards due to the dispersal of flammable vapours in the atmosphere and to flammable mixtures in a cargo tank. Accordingly:-

(a) when the vessel is not provided with an inert gas system, the operation shall be such that the flammable vapour is discharged initially,-

(i) through the vent outlets as specified in paragraph clause (i) if sub-rule (1); or

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(ii) through outlets at least 2 meters above the cargo tank deck level with a vertical efflux velocity of at least 30 miles maintained during the gas-freeing operation;

(iii) through outlets at least 2 meters above the cargo tank deck level with a vertical efflux velocity of at least 20 miles and which are protected by suitable devices to prevent the passage of flame.

(b) When the flammable vapour concentration at the outlet has been reduced to 30% of the lower flammable limit, gas-freeing may thereafter be continued at cargo tank deck level.

(III) (a) The cargo pump-rooms shall be mechanically ventilated and discharges from the exhaust fans shall be led to a safe place on the open deck. The ventilation of these rooms shall have sufficient capacity to minimize the possibility of accumulation of flammable vapours. The number of changes of air shall be at least 20 per hour, based upon the gross volume of the space. The air ducts shall be arranged so that all of the space is effectively ventilated. The ventilation shall be of the suction type using fans of the non-sparking type;

(b) The arrangement of ventilation inlets and outlets and other deckhouse and superstructure boundary space openings shall be such as to complement the provisions of clause (a). Such vents, especially for machinery spaces, shall be situated as far aft as practicable. Due consideration in this regard shall be given when the vessel is equipped to load or discharge at the stern. Sources of ignition such as electrical equipment shall be so arranged as to avoid an explosion hazard.

(5) All the spaces in double hull and double bottom shall be fitted with suitable connections for the supply of air.

(a) Suitable portable instruments for measuring oxygen and flammable vapour concentrations shall be provided. In selecting these instruments, due attention shall be given to their use in combination with the fixed gas-sampling-line systems referred to in clause (b).

(b) Where the atmosphere in double hull spaces cannot be reliably measured using flexible gas sampling hoses, such spaces shall be fitted with permanent gas sampling lines. The configuration of such line systems shall be adapted to the design of such spaces.

(c) The materials of construction and dimensions of gas sampling lines shall be such as to prevent restriction. Where plastic materials are used, they shall be electrically conductive.

(2) All tankers shall be equipped with at least one portable instrument for measuring flammable vapour concentrations, together with a sufficient set of spares. Suitable means shall be provided for the calibration of such instruments.

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(6) The tankers of less than 20,000 tonnes deadweight shall be provided with a deck foam system complying with the requirements of clause 7.

(7) The tankers are to be provided with a deck foam systems which are dealt with as follows:-

(a) The arrangements for providing foam shall be capable of delivering foam to the entire cargo tanks deck area as well as into any cargo tank the deck of which has been ruptured;

(b) The deck foam system shall be capable of simple and rapid operation. The main control station for the system shall be suitably located outside the cargo area, adjacent to the accommodation spaces and readily accessible and operable in the event of fire in the areas protected;

(c) The rate of supply of foam solution shall be not less than the greatest of the following:-

(i) 0.6 liters/min per square metre of cargo tanks deck area, where cargo tanks deck area means the maximum breadth of the vessel multiplied by the total longitudinal extent of the cargo tank spaces,

(ii) 6 liters/min per square metre of the horizontal sectional area of the single tank having the largest such area; or

(iii) 3 liters/min per square metre of the area protected by the largest monitor, such area being entirely forward of the monitor, but not less than 1,250 liters/min.

(iv) the foam from the fixed foam system shall be supplied by means of monitors and foam applicators. At least 50% of the foam solution supply rule required in sub-clause (i) and (ii) shall be delivered from each monitor. On tankers of less than 4,000 tonnes deadweight the Administration may not require installation of monitors but only applicators. Nevertheless, in such a case the capacity of each applicator shall be at least 25% of the foam solution supply rate required in sub-clause (i) and (ii),

(v) (ia) the number and position of monitors shall be such as to comply with the provision. The capacity of any monitor shall be at least 3 liters/min of foam solution per square metre of deck area protected by that monitor, such area being entirely forward of the monitor. Such capacity shall be not less than 1,250 liters/min,

(ib) the distance from the monitor to the farthest extremity of the area forward of that monitor shall not be more than 75% of the monitor throw in still air conditions;

(vi) a monitor and hose connection for a foam applicator shall be situated both port and starboard at the front of the poop or accommodation spaces facing the cargo tanks deck. On tankers of less than 4,000 tonnes deadweight a hose connection for a foam applicator shall be situated both port and starboard at the front of the poop or accommodation spaces facing the cargo tanks deck;

(vii) the applicators shall be provided to ensure flexibility of action during fire-fighting operations and to cover areas screened from the monitors. The capacity of any applicator shall be not less than 400 liters / min and the applicator throw in still air conditions shall be not less than 15 meters. The number of foam applicators provided shall be not less than four. The number and disposition of foam main outlets shall be such

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that foam from al least two applicators can be directed on to any part of the cargo tanks deck area;

(viii) the vapour shall be provided in the foam main, and in the fire main when this is an integral part of the deck foam system, immediately forward of any monitor position to isolate damaged sections of those mains;

(ix) an operation of a deck foam system at its required output shall permit the simultaneous use of the minimum required number of jets of water at the required pressure from the fire main.

(8) The cargo pump rooms are to be provided with fixed fire-extinguishing systems meeting the following requirements, namely:-

(a) Each cargo pump-room shall be provided with one of the following fixed fire-extinguishing systems operated from a readily accessible position outside the pump room. The cargo pump-rooms shall be provided with a system suitable for machinery spaces of category 'A';

(i) either a carbon dioxide or a halogenated hydrocarbon system to the satisfaction of the administration shall be provided,
(ia) the alarms shall be safe for use in a flammable cargo vapour or air mixture,
(ib) a notice shall be exhibited at the controls staling that due to the electrostatic ignition hazard, the system is to be used only for fire extinguishing and not for inverting purposes,

(ii) a high-expansion foam system to the satisfaction of the Administration shall be provided. The foam concentrate used shall be suitable for extinguishing fires involving the cargoes carried,

(iii) a fixed pressure water-spraying system shall be provided to the satisfaction of the Administration;

(b) Where the extinguishing medium used in the cargo pump-room system is also used in systems serving other spaces, the quantity of medium provided or its delivery rate need not be more than the maximum required for the largest compartment.

46. **Carriage of dangerous goods**.- The requirements of Annexure 7 shall apply to the carriage of dangerous goods classified therein, carried in vessels and barges in packaged from or in solid from in bulk as appropriate.

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CHAPTER - IX

LIFE SAVING APPLIANCES

47. **Life Saving Appliances.**- Notwithstanding anything contained in any rules or regulations made by the Central Government in this regard, the requirement for the life saving appliances shall be as specified in Annexure VI.

Provided that only the life rafts and life buoys to be provided on boat. The life jackets not recommended, as it is impractical to store, maintain and use.

CHAPTER - X

RADIO COMMUNICATIONS

48. **Radio Communications.**- Every vessel and manned barge shall be provided with means of communication (e.g.: VHF radio telephone, of suitable range with back up battery mobile phone, etc.) to maintain continuous bridge to bridge communication and also bridge to land stations to the satisfaction of the administration.

CHAPTER - XI

NATIONAL WATERWAY, SAFETY OF NAVIGATION AND SHIPPING

PART-1

49. **Definitions.**- For the purpose of this Chapter, unless the context otherwise requires,.-

(a) "Authority" means the Inland Waterways Authority of India, constituted under sections of the Inland Waterways Authority of India Act, 1985 (82 of 1985);

(b) "channel marks" includes bamboo marks, buoys and beacon;

(c) "Competent Officer" means an officer appointed as such by the Authority to be the in-charge of a section of the National Waterway for the development, management and maintenance;

(d) "convoy" means a group of vessels, floating equipment or raft towed-or pushed by a mechanically propelled vessel;

(e) "drifting" means being driven by the current with the engine stopped; "ferry boat" means any vessel providing a transport service across or along a waterway;

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(g) "inland mechanically propelled vessel" means a mechanically propelled vessel which ordinarily plies on any inland water;

(h) "lock" means confined section of river or canal where level can be changed for raising and towering boats between adjacent sections by use of gates and sluices;

(i) "lock basin" means the approach to the lock narrowing towards the lock from upstream and downstream;

(j) "master" means any person not being a pilot, harbour master, berthing master, has for the time being the command or charge of a vessel;

(k) "mechanically propelled vessel" means every description of vessel propelled wholly or in part by electricity, stream or other mechanical power;

(l) "navigable channel" means the channel intended for passage of ships;

(m) "owner" means when used in relation to goods, includes any consignor consignee, shipper or agent for the safe custody thereof and when used in relation to any vessel, includes any part owner, chartered consignee, mortgage or agent in charge thereof;

(n) "port" means an inland port;

(o) "Schedule" means Schedule to this Chapter;

(p) "section" means a portion of the waterway controlled by one field headquarter;

(q) "small craft" means any vessel with a hull length less than 10 metres and less than 3 metres wide;

(r) "terminal" means the place where the cargo and passengers change from one mode to other mode of transportation.

Explanation.-Terminal facilities include berthing, cargo transfer, storage and ticketing and passenger rest, comfort rooms;

(s) "vessel" means every description of watercraft, including small craft vessel under oars or sail, floating equipment and non-displacement craft.

PART-II

WATERWAYS AND SAFETY MEASURES ON WATERWAYS

50. Marking of Navigable Channel.- A navigable channel may be marked to indicate safe limits of the channel by channel marks like bamboo marks or buoys. Details of

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channel marking are given in Schedule I. In case there is night navigation marks shall be provided with light or painted with luminous paint.

51. **Traffic Signals and Signs**.- The traffic signals or signs may be erected on the banks of the river or on any fixtures on the river to ensure safety on the navigable channel. The signs boards shall be painted with bright luminous paint. Different signals and signs are given in Schedule -II.

52. **Passage through Bridges**.- When a vessel is passing under a bridge, the height of the mast or the height of the collapsed mast and that of the wheelhouse or super structure shall be less than that between waterway level and the height of the road bridge. The speed of such vessel shall be regulated with reference to prevailing weather conditions and the currents likely to be experienced.

53. **Passage through locks**.- **(1)** While navigating through the locks and lock basin, the master shall comply with any orders given to him by the lock master to ensure safety and orderly movement of ship and quick passage through the lock.

(2) The order of priority for passage through the lock shall be as follows, namely:-

(a) Vessels of the Authority, government vessels, vessels belonging to the military and police;
(b) Passenger craft,
(c) Fishing boats,
(d) Cargo vessel,
(e) Other craft.

(3) The master shall take the following precautions while navigating through the lock, namely:-

(a) Vessels approaching a lock basin shall reduce speed and navigate with caution. Overtaking is prohibited near lock basin unless instructed to do so by the lock master.
(b) Vessels shall not trail anchors, cables or chains in locks or lock basin,
(c) While the lock is being filled or emptied, vessels shall be moored and mooring shall be so handled as to prevent bumping against the walls or gates,
(d) Vessels shall provide adequate fenders to avoid damage to the lock structure,
(e) Vessel under sails shall lower their sails before entering the lock.

(4) The passage through locks shall be in the order of arrival of the vessels in The lock basin.

(5) Notwithstanding anything contained in sub-section (2), any vessel expressly granted priority of passage by the Authority shall have priority for locking or unlocking.

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54. **Reduction of speed in certain circumstances.** - (1) Every vessel shall regulate their speed to avoid creating excessive wash or suction likely to cause damage to stationary or other moving vessels or structures.

(2) In particular the vessel shall reduce speed in good time, but without loosing the steering way required for safety:

(a) out side port entrances,

(b) near vessels made fast to the bank or to a landing stage loading or discharging cargo,

(c) near vessels lying at normal stopping places.

55. **Drifting of a vessel on the National Waterway.** - Drifting of a vessel in the National Waterway unless authorized by the Competent Officer, is prohibited.

56. **Crossing of navigable channel by ferry vessels.**- While crossing the navigable channel, the ferry vessels shall keep at such distance from vessels or rafts moving along the navigable channel, so that the latter are not obliged to change their course or reduce speed:

Provided that ferry vessels, under special circumstances may be granted priority of passage across the navigable channel by the Competent Officer and such vessel shall exhibit a green all-round light by night and a green flag by day, and shall have right of way as the circumstances permit.

57. **Navigational and meteorotogical information.** The Competent Officer shall arrange for dissemination of information on storm, flash flood, channel depth and dangers in navigation by issuing river notices," publishing river charts and displaying appropriate cautionary signals as given in Schedule -III, all the river ports.

PART-III

SAFETY OF VESSELS

58. **Certification of Survey and Registration** .- Every certificate of registration and every certificate of survey issued in respect of a mechanically propelled vessel under the Merchant Shipping Act, 1958, the Coasting Vessels Act, 1938, the Canals and Public Ferries Act, 1890 (Madras Act No. 11 of 1890) and the Inland Vessels Act, 191 7 shall be valid and effective as a certificate of registration or certificate of survey as the case may be, for making voyage in the national waterways:

Provided that the certificate of survey shall be suitably endorsed by the Competent Officer having regard to the safely requirements as per the rules.

59. **Certificate of Competency.**- The Certificate of competency or certificate of service as master, serang, engineer and engine driver issued under the Merchant Shipping Act, 1958 and the Inland Vessels Act, 1917, shall be valid for making voyage in national waterways.

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60. **Identification marks on vessels.** - (1) Every vessel except a small craft shall bear the following identification marks on its hull, namely:-

(a) Name of vessel, (Name shall be inscribed on each bow and stern of the vessel),
(b) Registration No.,
(c) Place of registry and year of registration.

(2) The identification mark shall be inscribed with letters not less than 20 cm in height and 2 cm. wide and shall be painted in light colour on a dark background or in a dark colour on a light background.

(3) In addition to the identification marks, every vessel shall display on a fixed board, exhibited on the upper deck, the following information, namely:-

(a) gross registered tonnage,
(b) maximum permissible number of passengers,
(c) name of the owner,
(d) date of last survey.

(4) Every vessel shall have the load line marked at least for one meter amid-ship on both sides and draught scale marked in meters and decimeters at both ends of the vessel.

(5) Every small craft shall have its registration number and name of the owner inscribed on both sides of the vessel.

(6) Every craft shall have its registration number or the name of the owner, or both, exhibited on a wide board at a conspicuous part of the craft.

61. **Vessels To Ply With Certain Conditions For Movement On National Waterways.**

Vessels making voyage in the national waterways shall:-

(a) ensure that the length, breadth, height, draught and speed of the vessel, convoys, and side by side formations are suitable and in accordance with the limits as specified by the Competent Officer from time to time;
(b) ensure that no object is allowed to project beyond the sides of the vessel or raft that would constitute a danger to other vessels, rafts, floating establishments or installations on or adjacent to the waterway or channel except under the condition specified at (c);
(c) ensure strict compliance of the safety requirements for carriage of over dimensional cargo as specified by the Competent Officer in each case.

62. **Conditions relating to mooring or anchoring of vessels in port area.** - No vessel shall be moored or anchored within a port except in areas designated for such purposes by the Competent Officer.

63. **Stationary Vessels.**- All stationary vessels, rafts and floating equipments must be anchored or made fast securely enough to withstand the current in such a way that they can adjust to the changes in water level.

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64. Pilotage - (1) The Competent Officer shall.-

(a) classify the river stretch where pilotage shall be compulsory and where the pilotage shall be optional;

(b) arrange positioning of experienced pilots; and

(c) provide services of the pilot to the vessels in areas where pilotage is declared compulsory.

PART- IV

NAVIGATIONAL SAFETY AND THE RESPONSIBILITY OF THE MASTER AND THE OWNER

65. Instructions to the Master - (1) The master shall be responsible for ensuring that the vessel is river worthy. He shall follow the rules relating to the safety measures for navigation in particular and following in general, namely:-.

(a) take all precautions required to exercise vigilance and to avoid damage to the vessel, installations in the national waterway and avoid causing obstructions to shipping and navigation;

(b) to avoid imminent danger, take all steps required by the situation (according to the general practice of seamanship) even if this entails departing from these rules;

(c) be responsible for compliance with the rules or rules applicable to his vessel and his crew and to the vessels in tow, while his vessel is engaged in towing of other vessels;

(d) ensure possession of a valid certificates of registration and survey of the vessel and valid certificate or license by the crew, ships article or the crew list, ships log and engine log;

(e) ensure that at no time the vessel is over loaded or carried more than the number of passengers it is certified to carry;

(f) ensure that dangerous goods or explosive materials are carried on board as authorized by the Competent Authority and procedures and safety precautions as per the Explosives Rules, 1983 arc taken for carrying of such goods or material onboard;

(g) on sighting a vessel or raft which has suffered an accident endangering persons or he vessel or threatening to obstruct the channel, give immediate assistance to such vessels without endangering safety of his own vessel;

(h) in case of any marine casualty, give warning to the approaching vessels to enable of sinking or goes out of control;

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(i) ensure that life saving appliances as specified in Schedule IV are carried onboard, in good condition and in a position available for immediate use;

(j) ensure that no time the vessel discharge in the waterway except at places designated by the Competent Officer, raw sewage, oily substances, garbage etc.

(2) The master of a passenger vessel shall display the disposition and use of life saving appliances carried onboard and demonstrates the use of life jackets before commencement of journey.

(3) The master shall ensure that all the navigational aids, fire fighting and ftooding control appliances are on board in proper working condition and in a position available for immediate use and cause regular conduct of exercises to his crew for the efficient use of such appliances.

(4) The master shall make immediate report to the nearest competent officer on -
(i) sighting of any other vessel in distress,
(ii) grounding or sinking of the vessel,"
(iii) outbreak of fire or ftooding in his vessel;
(iv) damage caused to any waterway installations or permanent structures,
(v) observing uncharted obstruction or failure of navigational aid is noticed,
(vi) failing over board of any object which may become an obstruction or danger to navigation,
(vii) spillage of oil into National Waterway,
(viii) piracy or theft onboard.

(5) The master or persons in charge of a vessel shall give the competent officer or any person authorized by him all necessary facilities for verifying compliance with these 'rules.

66. **Instructions to the Owner -** (1) The owner of the vessel shall make sure that the vessel is river worthy in all respect and has competent crew on it.

(2) **The owner shall -**
(a) ensure that the vessel does not proceed on any voyage or be used for any service unless the vessel has a valid certificate of survey in force applicable for such voyage or service,
(b) ensure that only qualified personnel with a valid certificate of competency certificate of service or license are employed on board the vessel as master serang, engineer or driver and the crew,
(c) ensure that the crew provided is sufficiently huge and skilled to ensure the safety on those onboard and safe navigation,
(d) provide insurance for his vessel against third party risks,
(e) arrange displaying of the distinguishing mark (registration mark) in a conspicuous place,
(f) ensure that the certificate of registration granted in respect of any vessel shall be used only for the lawful navigation of that vessel,

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(g) report alterations carried out on his vessel which do not correspond with the particulars relating to the vessel or the description entered, in the certificate of registration to the registering authority,

(h) if it is an abandoned vessel, in the navigable channel, make arrangements for immediate marking of the vessel to avoid danger to other vessels,

(i) make arrangements for the removal of a vessel from the navigation channel as early as possible or as directed by the competent officer,

(j) forthwith give notice to the nearest competent officer, whenever-

(i) a vessel has been wrecked abandoned or materially damaged,

(ii) any casualty happening to or on board any vessel, including loss of life, material damage to any other vessel or structures, (iii) a vessel has spilled oil into National Waterway.

(3) If an owner fails to remove a vessel under clause (i) of sub-rule (2), the Competent Officer shall cause the removal of such vessel and recover the cost of such removal from the owner.

PART-V

SUSPENSION, CANCELLATION AND APPEAL

67. **Power to suspend and cancel endorsement on certificate of survey.**- (l) The Competent Officer reserves the right to suspend forthwith the endorsement on Certificate of Survey of the vessel for a period not exceeding sixty days in the case of contravention of any of the regulation mentioned herein before at the first instance.

(2) In the case of repeated contravention, the Competent Officer shall have the power to cancel the endorsement on Certificate of Survey of the vessel forthwith.

68. **Appeal.** - (1) Any person aggrieved by an order of the Competent Officer issued under rule 67, may within thirty days from the date on which he receives such order, appeal against it to the officer so designated.

(2) The officer so designated shall cause notice of every such Appeal to be given to the Competent Officer in such manner as may be prescribed and after giving an opportunity to the appellant to be heard, shall pass such order thereon as deems fit and his decision shall be final.

PART-VI

PENALTIES AND LEGAL PROCEEDINGS

69. **Penalty For Failure To Observe Navigable Channel.** - If the master of the vessel navigates beyond the safe limit of navigable channel mark as prescribed in rule 50, he shall be punishable with fine which may extend to four hundred rupees.

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70. **Penalty for Failure to Observe Traffic Signals and Sign.**- If the master of the vessel fails to observe any of the traffic sign or signal in contravention of rule 51, he shall be punishable with fine which may extend to two hundred and fifty rupees.

71. **Penalty for Failure to Observe Overhead Clearance.**- - If the master of the vessel fails to ascertain the overhead clearance of his vessel or fails to regulate the speed by passing through the bridge in contravention of rule 52, he shall be punishable with fine which may extend to five hundred rupees.

72. **Penalty for Non-Compliance with this Order from Lock Master.** - If the master of the vessel fails to comply any of the order given to him by the tock master to ensure the safety and orderly movement of the vessel and quick passage through the tocks in contravention of sub-rules (1) and (2) of rule 53, he shall be punishable with fine which may extend to five hundred rupees.

73. **Penalty for Failure To Take Precaution While Negotiating Through Lock.** – If the master fails to take any one of the precautions while passing through lock in contravention of sub-rule (3) of rule 53, he shall be punishable with fine which may extend to three hundred rupees.

74. **Penalty for Failure to Regulate Speed to Avoid Creation of Excessive Wash Or Suction.**- If the master of the vessel fails to regulate the speed of the vessel to avoid creation of excessive wash or suction likely to cause damage the stationary or other moving vessels or structures in contravention of rule 54, he shall be punishable with fine which may extend to two hundred rupees.

75. **Penalty for Causing the Vessel to Drift.** - If the master of the vessel, not being authorized by the Competent Officer, causes his vessel to drift in contravention of rule 55, he shall be punishable with fine which may extend to one hundred rupees.

76. **Penalty for Failure to Keep Safe Distance.** - If the master of a ferry vessel while crossing the navigable channel tails to keep such distance from vessels or rafts moving along the navigable channel, so that the later are forced to change their course or reduce speed in contravention of rule 56, he shall be punishable with fine which may extend to one hundred rupees.

77. **Penalty for Failure to Observe Navigational and Meteorological Information.** – If the master of the vessel fails to observe the river notices or river charts or cautionary signals issued by the Competent Officer in contravention of rule 57, he shall be punishable with fine which may extend to two hundred rupees.

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78. **Penalty for Failure to obtain Endorsement on Certificate of Survey for voyage in National Waterways** If any vessel proceeds on a voyage on National Waterway without obtaining the endorsement an Certificate of Survey in contravention of rule 58, the owner and the master shall each be punishable with fine which may extend to five hundred rupees.

79. **Penalty for Failure to Keep Valid Certificate of Competency For Making Voyage On National Waterways.**- If the vessel proceeds on a voyage on National Waterway without the Certificate of Competency in contravention of rule 59, the master, serang, engineer and engine driver shall each be punishable with fine which may extend to five hundred rupees.

80. **Penalty for Failure to Bear Identification Marks On Vessel.**- If any vessel makes a voyage on National Waterway without bearing any of the identification mark in contravention of rule 60, the master and the owner shall each be punishable with fine which may extend to two hundred and fifty rupees at first instance and rupees four hundred in case of continued contravention.

81. **Penalty For Failure To Comply With Waterway Limits** - If the master of the vessel fails to ensure that the length, breadth, height and draught of his vessel and speed of the vessel and convoy in contravention of clause (a) of rule 61 he shall be punishable with fine which may extend to three hundred rupees.

82. **Penalty For Causing An Object To Project Beyond The Sides Of The Vessel** – If the master of a vessel causes an object to project beyond the sides of the vessel constituting a danger to other vessel or installation in contravention of clause (b) of rule 61, he shall be punishable with fine which may extend to four hundred rupees.

83. **Penalty For Non-Compliance With Safety Requirement For Over Dimensional Cargo.**- If the master of the vessel fails to comply with the safety requirements for carriage of over-dimensional cargo in contravention of clause (c) of rule 61,he shall be punishable with fine which may extend to three hundred rupees.

84. **Penalty For Anchoring Of The Vessel Outside the Designated Area In a Port.**- If the master of the vessel causes his vessel to be moored or anchored in area not designated for such purposes within a port in contravention of rule 62, he shall be punishable with fine which may extend to one hundred at first instance and rupee one hundred per day in case of continued contravention.

85. **Penalty For Improper Mooring.** - If the owner or master of a stationary vessel, raft and floating equipment fails to anchor or make fast the vessel securely enough to withstand the current and change in water level in contravention of rule 63, he shall be punishable with fine which may extend to five hundred rupees.

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86. **Penalty For Failure To Observe The River Stretch For Compulsory Pilotage** - If the master of the vessel makes a voyage on national waterway without a pilot on a Ever stretch where pilotage is compulsory, as classified by the Competent Officer, in contravention of rule 64, he shall be punishable with fine which may extend to five hundred rupees.

87. **Penalty For Failure To Observe Instruction To The Master**.- - If the master of the vessel fails to observe any of the instructions given to him in contravention of rule 65, he shall be punishable with fine which may extend to five hundred rupees for each contravention.

88. **Penalty For Failure To Observe Instructions To The Owner.** - If the owner of the vessel fails to observe any of the instructions given to him in contravention of rule 66. he shall be punishable with fine which may extend to five hundred rupees for each contravention.

89. **Application of the Provision of Inland Vessels Act, 1917**.- Notwithstanding anything mentioned herein before, the provisions of Chapter 7, of the Inland Vessels Act, 191 7(1 of 191 7) shall also mutatis- mutandis apply to all the mechanically propelled vessels making voyage on national waterway as they apply to mechanically propelled vessels on any Inland Waterways

90. **Provision for punishment of offences not otherwise provided for** - If any person contravening any of these rules for which no specific penalty has been provided for, he shall be punishable with fine which may extend to two hundred and fifty rupees.

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SCHEDULE - I
(See rule 50)

MARKING OF THE WATERWAY

A. Buoyage and marking of the waterway.

(i) Direction of buoyage

The direction of buoyage shall be defined as follows :-

(a) The general direction taken by the mariner when approaching harbour, river or estuary or waterway from seaward.

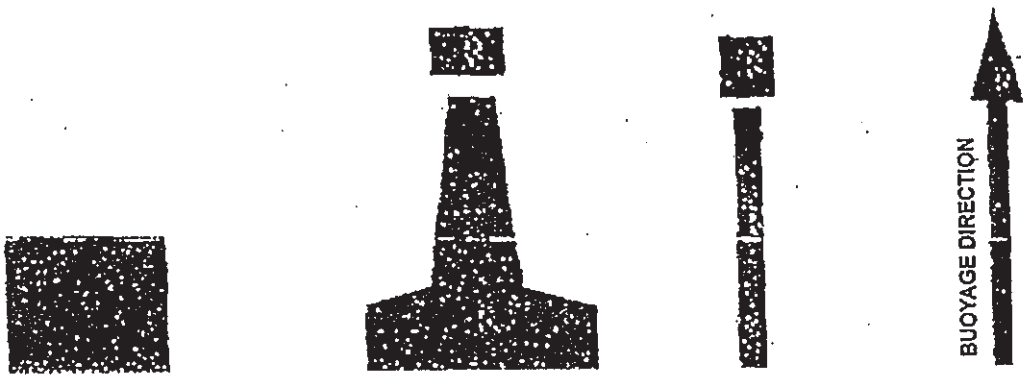
(b) In case of non-tidal rivers the direction against the flow of the river.

(c) The direction in which the kilometer chainage increases in case of estuary.

(ii) Port hand Marks

These marks indicate the left side of the channel..

By day : Red Buoys, preferably cylindrical (CAN), or red spars. Red Cylindrical top mart is compulsory on the spars and on the buoys if they are not cylindrical.



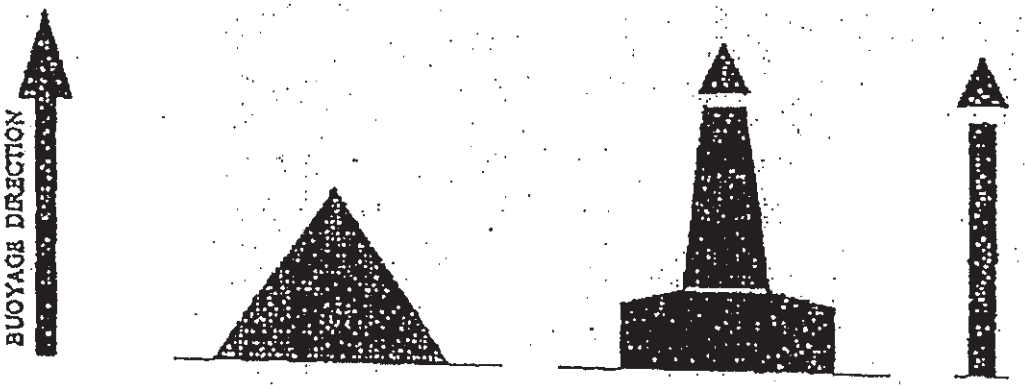
By Night : Rhythmic red lights, of any type

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(iii) Starboard hand Marks

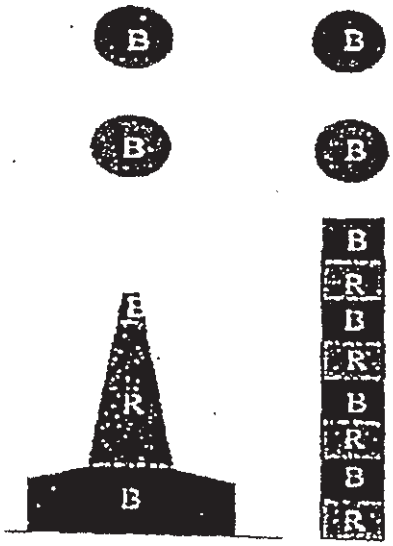
These marks indicate the right side of the channel.

By day :-
Green buoys, preferably conical, or green spars. A green conical top mark point upward is compulsory on the spars and on the buoys if they are not conical.



By **night**:- Rhythmic green lights, of any type.
R = RED
G = GREEN

(iv) Isolated danger Marks
An isolated danger mark is a mark created on. or moored on, or above an isolated danger which has navigable water, all round it.
Description of an isolated danger mark



a) Top mark: Two black spheres, one above the other .

b) Cotour : Black with one or more broad horizontal red bands.

c) Shape : Optical, but not confecting with lateral marks; pillar or spar preferred.

By Night : Rhythmic white light - group flashing.

R = RED, B = BLACK

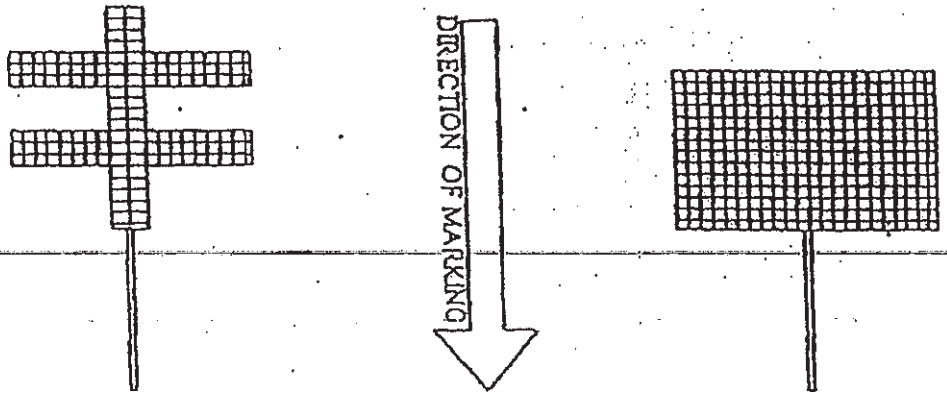
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B. Conventional Marks

(i) Direction of marking
Conventional marks are made of bamboo strips and used only in rivers. The direction of marking will be downstream the river.

(ii) Bamboo mat marks at the beginning and end of the channel

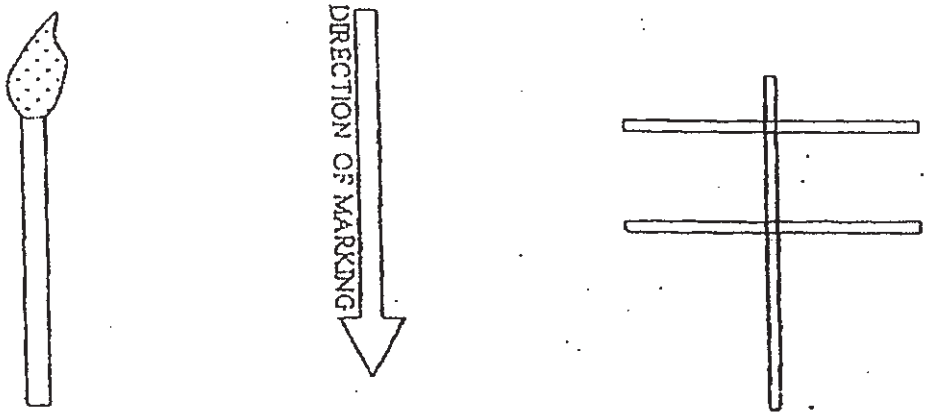
Right Hand Marks **Left Hand Marks**



(iii) Bamboo marks in between and marks

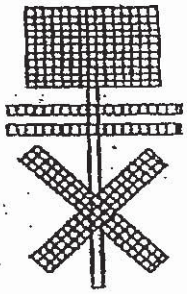
Right Hand Marks
(Ball mark)

Left Hand Marks
(Bamboo Strips; mark)

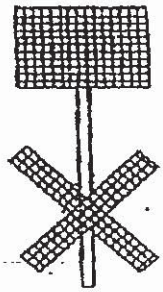


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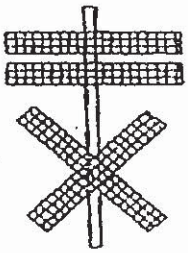
(iv) Under water snag marks (painted with lime)



a) To indicate snag which can be crossed from either side.

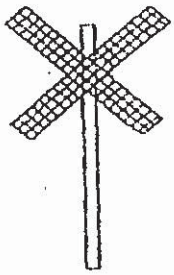


b) Snag to be kept on left.



c) Snag to be kept on right

Closing of channel



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SCHEDULE II

(See rule 51)

C. Signs and Signals

1. Day and Night marking

Where the prescribed mark consist of :-

(a) Light only, the lights may be used by day and by night

(b) Boards only, the boards may be used as night marks if illuminated. Boards shall be rectangular in shape of 1.5 metre x 1 metre size minimum;

(c) Boards and lights, By day, either boards or lights may be used; by night either lights or illuminated boards may be used.

2. Lighting

Lights may be provided at night for lighting of the tower parts of a bridge, of the piers of a bridge, of the approaches to a tock, of a section of small canal etc.

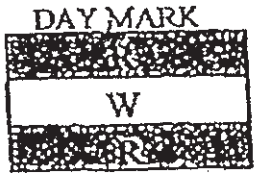
3. Intensity of Lights

The lights recommended in this rules shall be visible for a distance of at least 2 kms., and shall be distinct from the surrounding lights.

4. Fixed lights

(i) Single red light





"No passage"
Either to some of the channels or arms of the waterway, or to the whole of the waterway.

Two red light placed one above the other

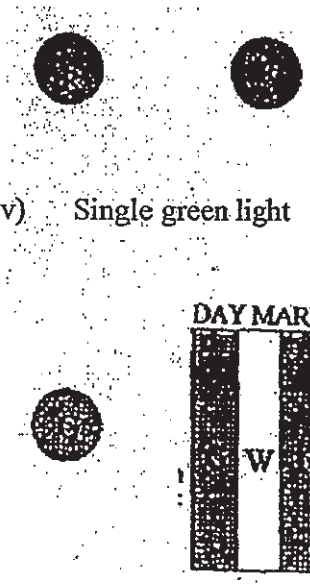




Complete and prolonged stoppage of navigation (blockage of waterway bridges or locks out of service)

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(iii)	Two or more red Lights set apart	"No passage" (between) the lights).
(iv)	Single green light	"Go ahead" (the green light is always placed at side of the navigable channel). The use of this signal shall however, be restricted to cases where, a single green light is sufficient clearly to indicate the clear passage. In other cases, the use of two green lights set apart, and indicting the passage is recommended.
(v)	Two green lights set apart	"Go ahead between the lights.
(vi)	Single yellow light, along or between green lights	"Go ahead, but look out for traffic coming the other way" Vessels may steer towards the light, which is is placed above the navigable channel.



Y Y

Or

Proceed with caution.

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(vii) A red light above a White light



"Do not cause wash"



(viii)



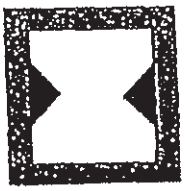
Do not exceed the speed.
Indicated (in km/hour)

(ix)



Clearance above water level limit.

(x)



Width of fairway or channel limit.

W = WHITE
R = RED
G = GREEN
Y = YELLOW
B = BLACK

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SCHEDULE - III
(See rule 57)

STORM WARNING SIGNALS

		Day	Night
1.	WARNING: A storm may affect you shortly		
2.	DANGER: A storm will soon strike you		
3.	DANGER: The port is threatened by a Bore - tide or flash flood;. sudden rise in water level and strong current expected.		
4.	GREAT DANGER; A violent storm will soon strike you.		

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SCHEDULE - IV

(See clause (i), sub-rule (1) of rule 65)

DETAILS OF LIFE SAVING APPLIANCES TO BE CARRIED ON BOARD INLAND VESSELS

1. Classification of vessels

Inland vessels shall be classified as follows namely:-

Class I	Passenger vessels
Class II	Ferry launches and boats
Class III	Cargo vessels and vessels other than those falling underclass-I. II, IV, V & V
Class IV	Non propelled vessels (barges)
Class V	Pleasure crafts

2. Vessels of Class - I

2.1 Every vessel of Class. I shall be provided with:

(a) Sufficient number of boat(s) as per requirement of sub rule 2.2 and life rafts to accommodate total number of passengers and crew on board.

(b) (i) One life jacket for 50% of the passengers and crew on board only in WCC and 100% in respect of NW-I and II.

(ii) Life jacket for child, for 10% of total number of persons certified to carry. For the purpose of this section, child means persons weighing below 30 kg.

(c) At least four life buoys for vessels up to 25 metre length, six life buoys for vessel 25-45 metre length and 8 life buys more than 45 metre length. At least two of the lifebuoys supplied shall be equipped with self igniting light if the vessel navigates at night.

2.2 At least one boat minimum carrying capacity of ten persons for every vessel up to 25 metre length except for small crafts, and at least two boats for vessel of more than 25 metre length shall be provided. The boat shall be provided with necessary davit for launching. Boats are to be stowed equally on either side of the vessel if more than one boat provided.

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3. Vessels of Class-II

3.1. Every vessel of Class II shall be provided with:

(a) Sufficient number of boat (s) as per the requirement of sub rule 3.2 and life rafts to accommodate the total number of passengers and crew on board.

(b) (i) Life jackets for 50% of the passengers and crew on board only in WCC and 100% in respect of NW - I & II.

(ii) Life jackets for child, for 10% of total number of persons certified to carry. For the purpose of this section, child means person weighing below 30 kg.

(c) At least eight life buoys of which at least two shall be equipped with self igniting light if the vessel navigates at night.

3.2 At least one boat with minimum carrying capacity of 10 persons for every vessel between 25 metre to 45 metre length and two boats for every vessel of more than 45 metre length shall be provided. Boat shall be provided with required davit for launching. If more than one boat supplied they .may be stowed on either side of the vessel. For vessels used for single continuous' voyages not exceeding 5 Kms. the competent officer may permit use of buoyant apparatus or life buoys in lieu of boats.

4. Vessels of Class - III

Every vessel of Class III shall be provided with:

(a) At least one life raft to accommodate all crew for vessel over 10 metre.

(b) One life jacket for each crew or person on board.

(c) At least two life buoys for vessel up to 25 metre length and four life buoys for vessel of above 25 metre length of which one shall-be equipped with self igniting light if the vessel navigates at night.

5. Vessels of Class - IV

Every manned vessel of Class IV shall be provided with:

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(a) At least two life buoys one of which shall be equipped with a self igniting light if the vessel navigates at night,

(b) One life jacket for every crew on board.

6. **Vessels of Class -V**

Every vessel of Class V up to 10 metre in length shall carry life jacket for each person. Vessel above 10 metre shall carry sufficient life raft / life buoys for all persons on board. However, all vessels of Class V shall carry at least 2 Life Buoys of which one to be of self igniting type if the vessel navigates at night.

7. **Technical requirements.-**

Every life saving appliances provided as per the provision of these rules shall meet the requirement of Appendix 'A'.

8. **Stowage.-**

Every life saving appliances provided as per the provision of these rules shall be stowed according to the requirement of Appendix 'A' as far as applicable.

9. **Display of usage.-**

On every vessel of Class I and II, the list of life saving appliances and instruction of their use shall be displayed at conspicuous places.

10. **Exemption.**

Exemption in vessels or class of vessels provided that she complies with the requirement of the Inland Vessels Act, 1917, the keel of which is at corresponding stage of construction before the entry into force of these rules may be exempted from compliance therewith of the provision for carriage of life boats until two years after the date of entry into force of these rules provided that adequate life raft in lieu are provided on board.

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APPENDIX 'A'

SPECIFICATION OF LIVE SAVING APPLIANCES

1. Boats.

(a) All boats shall be well designed and of such shape and proportions that they sufficient stability and freeboard when carrying their full load of persons and equipment. Its stability shall be deemed to be adequate if, with half the maximum permissible number of persons standing on one side of the boat, there remains a freeboard of not less than 100 mm.

(b) All boats shall be capable of being lowered into the water with their full load of persons and equipment. They shall be of such strength that they will not suffer permanent deformation if subjected to an overload of 25 percent.

2. Life rafts.

(a) Every life raft shall be fitted with securely beckets,

(b) Every life raft shall be so constructed as to comprise units containing a volume of air of at least 0.096 M^3.

(or equivalent buoyancy devices in the case of rigid life rafts) an a deck are of at least 0.372 sq. m., for every person it is permitted to carry,

(c) The life raft shall be so constructed that if it is dropped into the water from the highest deck neither the life raft nor its equipment will be damaged ,

(d) Every rigid life raft shall be constructed as to retain its shape in all weather conditions, on deck and in the water.

3. Life Jackets

A life jacket shall satisfy the following requirements, namely:-

(a) It shall be properly designed and made of suitable material,

(b) It shall be capable of supporting a mass of 7.5 kg. in fresh water for 24 hours,

(c) It shall be capable of keeping the head of an exhausted or unconscious person above water,

(d) It shall be so designed as to eliminate so far as possible all risk of its being put on incorrectly, however, it shall be capable of being worn inside out,

(e) It shall be capable of turning the wearer's body, on entering the water to a safe floating position slightly inclined backwards from the vertical,

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(f) It shall withstand the effects of oil and oil products and of temperatures up to 50°c,

(g) It shall be reflecting orange in colour,

(h) It shall be easy and quick to put on, and shall fasten securely to the body,

(i) It shall be fitted with a whistle held in a pocket,

(j) It shall bear the following particulars:-

- Name of manufacturer,
- Type,
- Year of manufacture.

4. Life buoys.-

(a) Every life buoy shall,-

(i) Be capable of supporting a mass of 14.5 kg. in fresh water for 24 hours,

(ii) Be made of suitable materials and withstand the effects of oil and oil products and of temperatures up to 5COC,

(iii) Be reflecting orange in colour,

(iv) Have a mass of not less than 6.5 kg,

(v) Have an internal diameter of 0.45 metre + 10 percent,

(vi) Be encircled with rope which can be grasped;

(b) At least one life buoy on each side of the vessel shall be fitted with self- igniting light and buoyant life line which is not less than 25 meter long and which is firmly secured by a hook.

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APPENDIX 'B'

STOWAGE AND HANDLING OF LIFE SAVING APPLIANCES

All buoyant apparatus and life buoys shall be so placed as to be capable of floating off the vessel freely.

Suitable arrangements shall be made for access to the boats and rafts.

Effective means shall be provided for lighting the life saving appliances and their launching devices.

The launching devices provided for boats shall be so designed and arranged that the boats can be lowered reliably, quickly and without danger to persons.

The launching devices davits, fails, locks and other gear shall be of such strength that the boats can be safely lowered on either side in unfavorable conditions of list or trim.-

Life saving appliances shall be so stowed that they are easily accessible and can be launched as quickly as possible.

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CHAPTER - XII

ASSIGNMENT OF LOAD LINE

91. General.- (1) Notwithstanding anything contained in any rules or regulations made by the Central Government in this regard, the requirements for assignment of load line shall be as specified in Annexure I.

(2) The vessels and barges to which these rules apply shall not proceed on voyage unless surveyed, marked and certified in accordance with the provisions of these rules.

(3) Nothing in these rules shall prevent the Administration from assigning a greater freeboard than the minimum freeboard determined in accordance with these rules.

92. Load Line Mark.- A load line mark as detailed in rule 51 is to be marked at the mid-vessels (P&S) indicating the maximum permissible draught while operating in the inland waters.

93. Details of marking.- The marks shall be painted in white or yellow on a dark ground or in black on a light ground. They shall also be permanently marked on the sides of the vessel to the satisfaction of the Administration. The marks shall be plainly visible and, if necessary, special arrangements shall be made for this purpose. The load line shall be marked at or near Midvessels by a steel plate or a weld bead of 450mm in length and 25mm in width .

CHAPTER - XIII

CALCULATION OF BASIC FREEBOARD

(A) For All Decked Passenger Vessels Below 24 M

94.- Calculation Of Basic Freeboard.- (1) The formula for the calculation of basic freeboard shall be as under,-

The basic freeboard F.-

$$F = 50 + ((150 \times L))$$

where L = length of vessel in m
F = freeboard in mm.

(2) Where the actual depth to the upper edge of the deck line is greater or less than D, The difference between the depths shall be added to or deducted from the freeboard.

95. Correction to the freeboard.- (1) The Administration shall apply the appropriate provisions of the Load Line Convention to apply corrections to the basic freeboard.

(2) In calculating the correction to the basic freeboard the Administration shall take into account the general provisions and conditions of assignment, specified in this Chapter to ensure the safety of life at sea and in particular:-

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(a) the position of opening,
(b) the height of the sills to the doorways,
(c) the height of hatchways,
(d) the height of ventilators and air pipes, and
(e) the weather tightness of the closing appliances including doorways, hatchways, ventilators, machinery space openings and air pipes.

(3) The freeboard in salt water in the summer zone, as corrected in accordance with sub-rules (1) and (2), but without the correction for deck line, as provided in rule 94, shall not be less than 50 mm. for vessels having hatchways with covers in position 1 the freeboard shall be not less than 150 MM.

(4) The minimum freeboard in the tropical zone shall be the freeboard obtained by a deduction from the summer freeboard of one forty-eight of the summer draught measured from the top of the keel to the centre of the ring of the load line mark and shall not be less than 50 mm. For vessels having hatchways with covers in position 1 the freeboard shall be not less than 150 mm.

(5) The minimum freeboard in fresh water of unit density shall be obtained by deducting from the minimum freeboard in salt water the displacement of the vessel in salt water in tones at the summer load waterline divided by forty times the tons per centimeter immersion in salt water at the summer load dateline.

(6) Where the displacement of the summer load water line cannot be certified, the deduction shall be one forty-eight of summer draught, measured from the top of the keel to the centre of the ring of the load line mark.

(B) FOR ALL DECKED PASSENGER VESSELS ABOVE 24 M IN LENGTH AND ALL OTHER VESSELS

96. **Calculation Of Basic Freeboard**,- In calculating the correction to the basic freeboard to ensure the safety of life at sea for all decked passenger vessels above 24 m in length the Administration shall ensure that the requirements specified in Annexure I are complied with.

CHAPTER - XIV

PREVENTION OF MARINE POLLUTION

97. **Application** .- This Chapter applies to all vessels operating in the inland waterways. The provisions of this Chapter establish the basic requirements with a view to reduce water pollution by oil, oily mixtures and garbage.

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98. **Definitions.-** In this Chapter unless the context otherwise requires, -

(a) "oil" means petroleum in any form, including crude oil, fuel oil, sludge, oil refuge and refined products;

(b) "oily mixture" means a mixture with any oil content;

(c) "chemicals" means Noxious Liquid Substances designated in MARPOL Annexure - II;

(d) "garbage" means all kinds of rubbish, domestic waste and waste generated during the normal operation of the vessel which may require continuous or periodic disposal;

(e) "reception facilities" means shore and floating installations for the deposit of all kinds of pollutants from the vessels with a view to their treatment, utilization, etc.

99. **Prevention of pollution by Oily mixtures & Chemicals.**

(1) No Oil, Oily Mixtures or Chemicals shall be discharged from the machinery spaces or cargo tanks into the water except under explicit permission' from the Administration.

(2) Every vessel to which these Rules apply is to provide adequate means of collecting and storing the oily mixtures onboard the vessel.

(3) In order to transfer the oily mixtures, the vessel should have a fixed discharge pipes on both sides with an international shore connection.

(4) In case, an onboard separator is provided, then means are to be provided for storage of the residues, and for transfer to shore reception facilities.

(5) If storage tanks are used, then the tanks are to be provided with a manhole and an air pipe.

(6) An approved record book shall be maintained for recording all activities pertaining to handling, storage and transfer of above oil and chemicals.

100. **Prevention Of Pollution By Garbage.**

(1) The prevention of pollution by garbage means are to be provided for collection of garbage onboard the vessels. This can either be a removable type or inbuilt in the hull.

(2) The design of garbage collection system is to be such that the garbage can be removed efficiently from the vessel with out the danger of it being scattered.

(3) The capacity of the garbage receptacles is to be adequate to store the garbage generated during the voyage of the vessel.

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ANNEXURE-I

(See rule 17)

Chapter 1

General, Definitions, Documentation

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Section 1

General

1.1 Scope

1.1.1 The Rules in this part apply to all-welded, single hull steel vessels of normal form, proportions and speed for operation in inland waterways.

1.1.2 For additional class notations relating various vessel types, requirements as per Pt.5 are to be complied with.

1.1.3 Vessels of unconventional forms and proportions or intended for carriage of cargoes not covered by the Rules or to be engaged in special service will receive individual consideration based on the general principles of the Rules. In these cases, however, additional calculations and/or model testing may be required to be carried out and submitted for approval.

1.1.4 Proposals for use of alternative materials e.g. aluminium, wood, etc. for some parts of the vessel shall receive special consideration. -

1.2 Equivalence

1.2.1 Alternative arrangements, scantlings and equipment may be accepted provided they can be shown to be equivalent to the overall safety and strong in standard of the Rules Direct calculations for the derivation of the scantlings as an alternative to those derived by the Rule formulae, may be accepted on special consideration. The calculation procedure and the assumptions made are to be submitted for approval.

1.3 National regulations

1.3.1 While the Rules cover requirements for the classification of vessels, the attention of all concerned is drawn to requirements of various local or national Regulations, Codes and Recommendations which the vessel may also have to comply with,

1.4 Load line and stability

1.4.1 All vessels will be assigned class only after it has been demonstrated that their intact/damage stability and loadline requirements (where applicable) are in compliance with the standards laid down by the local or National statutory authority.

1.5 Assumptions

1.5.1 It is assumed that significant dynamic excitation of major orders from propeller is and machinery do not fall close to any natural frequency of the hull.

1.5.2 It is assumed that the vessels will be competency handled and loaded as per The approved loading manuals.

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Section 2

Definitions

2.1 Principal particulars

2.1.1 The forward perpendicular, F.P., is the perpendicular drawn at the intersection of the maximum load water line with the fore side of the stern.

In vessels with unusual bow arrangement the position of the F.P, will be specially considered.

2.1.2 The after perpendicular, A.P., is the perpendicular drawn at the intersection of the maximum load waterline with the after side of the rudder post or the centerline of the rudder stock if there is no rudder post,

In vessels with unusual stern arrangement the position of the A.P. will be specially considered.

2.1.3 Rule length, L, is the distance, [m], between the forward and after perpendiculars. However L is to be not less than 96 per cent, and need not be greater than 97 per cent of the extreme length on the maximum load waterline.

In vessels with unusual bow and/or stern arrangement the Rule length, L, will be specially considered.

2.1.4 "Amidvessel is at 0.5L all of the F.P.

2.1.5 Breadth, B, is the greatest moulded breadth [m].

2.1.6 Depth, D, is The moulded depth [m]... measured, amid vessels from top of the keel to the moulded deck line of the uppermost continuous deck at side, When a rounded gunwale is arranged the depth is to be measured to the continuation of the moulded deck line.

2.1.7 Draught, T, is the moulded draught amidvessels corresponding to the maximum load waterline, [m].

2.1.8 The block co-efficient. C_b is The moulded stock co-efficient calculated as follows :-

$$C_b = \frac{\text{moulded displacement } [m^3] \text{ at draught T}}{LBT}$$

2.1.9 Speed V is the maximum service speed in knots on draught T.

2.2 Structural terms

2.2.1 The general terms used in the Rules for various structural parts of the vessels are defined as under:

- Strength Deck : In general the uppermost continuous deck. Where a superstructure deck has within 0.4L amidvessels, a continuous length equal to or greater than (1.5B + 3H), it is to be regarded as the strength deck instead of the covered part of the uppermost continuous deck. (H is the height of the superstructure, (m]).

- Superstructure : A decked structure on freeboard deck extending from side to side of the vessel or with the side plating not inboard of shell plating by more than 4 percent of the breadth B.

- Deckhouse : A decked structure above The freeboard deck with the side plating being-inboard of The shell plating by more than 4 ' per cent of the breadth B.

- Bottom Structure ; Shell plating with . stiffeners and girders below the upper turn of bilge and all other elements below and including The inner bottom plating in case of the double bottom. Stopping hopper tank top is to be regarded as a bulkhead.

- Side Structure : Shell plating with stiffeners and girders between the upper turn of bilge and the uppermost continuous deck at side. A rounded gunwale is included in the side structure'.

- Deck Structure: Deck plating with stiffeners, girders, and supporting pillars.

- Girder : A collective term for the primary supporting members, other terms include :

 - Transverses - transverse, girders under the deck.
 - Web frames - side vertical girders.
 - Hatch end beams - transverse deck girders at the ends of The hatch.
 - Stringers-horizontal girders.

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- Cross-ties - girders connecting two vertical girders in a deep tank.
- Floor - bottom Iransverse girders.
- Stiffener : A collective term for secondary supporting members; other terms being :
- Frames, Bottom, inner bottom, side or deck longitudinal.
- Reverse frame - transverse stiffener on the inner bottom.
- Horizontal or vertical bulkhead stiffeners.
- Other terms are defined in the appropriate Chapters.

2.3 Material factor

2.3.1 Material factor, k. a factor depending on material strength is defined in Ch.2.

Section 3

Documentation

3.1 General

3.1.1 Documentation is to be submitted as per the following paragraphs. In case of certain vessel types additional documentation may be required as per Pt.5.

3.1.2 The documents should be submitted in Triplicate, one copy of which shall be' returned.

3.2 Plans for information

3.2.1 The following supporting plans and calculations are to be submitted for information:
- General arrangement.
- Tank plan.
- Capacity plan.
- Lines plan and Hydrostatic curves or tables.
- Docking plan.

3..3. Additional information

3.3.1 The following additional information is to be submitted as necessary for strength calculations'

- Maximum values of still water bending moments and shear forces.
- Lightvessel weight and is longitudinal distribution.
- Bonjeans data.
- Stowage factor and angle of repose of bulk cargoes to be carried.
- Masses and unbalanced moments of heavy machinery components e.g. engines, cranes, winches etc.

3.4 Plans for approval

3.4.1 Plans as relevant are to be submitted for approval as indicated in Table 3.4.1. These should as far as practicable be complete in all necessary details.

3.5 Plans to be kept on board

3.5.1 A copy of the final approved loading manual and suitable scanning plans including-details of corrosion control system; if any, are to be placed on board the vessel.

3.5.2 To facilitate the ordering of materials for repairs, plans showing the disposition and extent of high tensile steel and steel of grades other than Grade A, along with the information relating to their physical and technical properties, recommended working treatment and welding procedures etc. are to be placed on board.

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Table 3.4.1. : Plans for approval	
Plan	**Including Information On**
Loading manual	Details of loading in all contemplated loading conditions and resulting SWBM, SF & Torsional Moments ™
Midvessel section Other transverse sections Longitudinal sections & decks Shell expansion & framing plan	Main particulars (L,B,D, T, C_b, V) Equipment specification Complete class notation applied for Spacing of stiffeners Deck loads, if other than those specified in the Rules Openings on the deck Openings on the shell.
Double bottom	Indication of access Height and location of overflows Loading on inner bottom
Watertight subdivision bulkheads & watertight tunnels.	Opening and their closing appliances
Aft-end structure sternframe or stern post Propeller shaft brackets Aft peak tank	Propeller outline Propeller thrust Structural details in way of rudder and propeller bearings Height and location of overflow.
Engine room structure Engine and thrust block seating	type, power and r.p.m. of propulsion machinery weight of machinery, boilers, etc.
Fore-end construction Fore peak tank	Opening on non-watertight bulkheads and diaphragm plates height and location of overflows.
Oil tight/water tight and partition Bulkheads in cargo tanks, ballast tanks and deep tanks	Intended tank contents & their densities Height and location of overflow / air pipes Tanks intended to be partially filled Corrosion protection; if any
Superstructures, deckhouses and machinery casings	Height of sills from deck and closing appliances for companion ways
Hatchways Hatch covers	Position and type loads if different from those specified in the rules Sealing and securing arrangement, spacing of bolts or wedges.
Rudder, stock and tiller Steering gear arrangement	Speed of the vessel (ahead & astern) Material of bearings, coupling bolts, stock and the locking device Rudder carrier.
Masts & derrick posts Support structure for masts, derrick posts & cranes	Derrick length and loading Dimensions and positions of stays and shrouds quality of material.
Testing plan of tanks & bulkheads	
Welding details	
Notes : (1) See Chapter 5, Section 6. (2) One drawing may contain more than one of the items from each group.	

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CHAPTER – 2
Materials of Construction

Contents

Section	
1	General
2	Corrosion Protection
3	Deck Covering

Section 1

General

1.1 Scope

1.1.1 The Rules relate, in general, to the construction of steel vessels. Consideration will however be given to the use of other materials also.

1.1.2 The materials used in the construction of the vessel are to be manufactured and tested in accordance with the requirements of Pt.2. 'Materials' of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules). Materials for which provision is not made may be accepted, provided that they comply with an approved specification and such tests as may be considered necessary.

1.2 Steel

1.2.1 Ordinary hull structural steel is a hull structural steel with a minimum yield stress of 235 [N/mm^2] and a tensile strength generally in the range of 400-490 [N/rW],

For ordinary hull structural steel, the material factor's' is to be taken as 1.0.

1.2.2 Steels having a yield stress of 265 [N/mm^2) and higher, are regarded as higher tensile steels. where higher tensile steel is used, the hull girder section modulus and the local scantlings may be reduced in accordance with the relevant requirement of the Rules. For this purpose, a material factor 'k' is to be taken as follows:

k = 0.78 for steel with a minimum yield stress of 315 [N/mm^2]

k = 0.72 for steel with minimum yield stress of 355 [N/mm^2]

1.2.3 Where steel castings or forgings are used for stern frames, rudder frames, rudder stocks, propeller shaft brackets and other major structural items, they are to comply with Pt.2 'Materials' of Main Rules as appropriate.

1.3 Grades of steel

1.3.1 The vessels covered by these Rules are generally to be constructed of Grade "A" steel. However, for materials of over 20 [mm] in thickness used in highly stressed areas, grades of steel with higher levels of notch toughness (Grades 'B', D' or 'E') may be required dependent on the stress pattern associated with its locations.

1.4 Aluminum

1,4.1 Where seawater resisting aluminum alloys manufactured and lasted in accordance with the requirements of Pt.2 of the main rules are used for superstructures, deckhouses, hatch covers or other structural components, scantlings equivalent to steel are to be derived as follows."

plating thickness, $t_a = t_s \sqrt{k_a}$

section modulus of stiffener, $Z_a = Z_s - k_a$

where.

T_a t_s = plating thickness of aluminum and mild steel respectively,
Z_a Z_s = section modulus of aluminum and mild steel stiffeners respectively.

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$$k_a = \frac{235}{\sigma_a}$$

σ_a = 0.2% proof stress or 70% of the ultimate strength of the aluminum material, whichever is lesser [N/mm^2].

1.4.2 The smaller modulus of elasticity of aluminum is to be taken into account, when determining the buckling strength of structural elements subjected to compression and the deflections, where relevant.

Section 2

Corrosion Protection

2.1 General

2.1.1 All steelwork, except inside tanks intended for the carriage of oil or bitumen, is to be protected against corrosion by application of suitable coating.

For protection required in salt water ballast spaces. See 2.5.

For protection required in holds of dry bulk cargo carriers, see Pt.5. Ch.1.

For the protection required in tanks carrying chemicals or other special cargoes, see Pt. 5, Ch.3.

2.1.2 Where bimetallic connections are made, measures are to be incorporated to preclude galvanic corrosion.

2:2 Surface preparation, prefabrication primers, and paints or coatings

2.2.1 Steelwork is to be cleared of mill scale and suitably cleaned before the application of surface paints and coatings. It is recommended that blast cleaning or other equally effective means be employed for this purpose.

2.2.2 Where a primer is used to coat steel after surface preparation and prior to fabrication, The composition of The coating is to be such that it will have no significant deleterious effect on subsequent welding work, and that it is compatible with the paints or other coatings subsequently applied. Unless the primer used is type approved by IRS for this purpose, tests as detailed in Pt.3, Ch.2, Sec.3 of the Main Rules are to be made to determine the influence of the primer coating on the characteristics of the weld.

Paints or other coatings are to be suitable for the intended purpose in the locations where they are to be used. Unless previously agreed, at least two coats are to be applied.

2.2.4 The paint or coating is to be compatible with any previously applied primer. See 2.2.2.

2.2.5 paints, varnishes and similar preparations having a nitrocellulose or other highly flammable base are not to be used in accommodation or machinery spaces.

2.2.6 In vessels intended for the carriage of oil cargoes having a flash point below 60°C (closed cup test), paint containing aluminum should not in general be used in cargo tanks, adjacent ballast tanks, cofferdams, pump rooms as well as on deck above the mentioned spaces, not in any other areas where cargo vapours may accumulate, unless it has been shown by appropriate tests that the paint to be used does not increase the incentive sparking hazard.

2.3 Internal cathodic protection

2.3.1 Impressed current cathodes protection systems are not permitted in any tank.

When a cathodic protection system is to be fitted in tanks for the carriage of liquid anodes with flash point not exceeding 60°C, a plan showing details of the locations and attachment of anodes is to be submitted. The arrangements will be considered for safely against fire and explosion aspects only.

2.3.2 Particular attention is to be given to the locations of anodes in relation to the structural arrangements and openings of the tank.

2.3.3 Anodes are to be of approved design and sufficient liquid to avoid resonance in the anode support, Wieldable steel copies are to be fitted, and these are to be so designed as to retain the anode even when the anode is wasted.

Anodes are to be attached to the structure in such a way that they remain secure both initially and during service. The following methods of attachment would be acceptable ;

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a) Steel core connected to the structure by continuous welding of adequate section.
b) Steel core bolted to separate supports, provided that a minimum of two bolts with lock nuts are used at each support. The separate supports are to be connected to the structure by continuous welding of adequate section.
c) Approved means of mechanical clamping.

2.3.5 Anodes are to be attached to stiffeners, or may be aligned in way of stiffeners on plane bulkhead plating, but they are not to be attached to the shell. The two ends are not to be attached to separate members which are capable of relative movement.

2.3.6 Where cores or supports are welded to the main structure, they are to be kept clear of the toes of brackets and similar steel raisers. Where they are welded to asymmetrical stiffeners, they are to be connected to the web with the welding kept at least 25 [mm] away from the edge of the web. In the case of stiffeners or girders with symmetrical face plates, the connection may be made to the web or to the centerline of the face plate but well clear of the free edges". However, it is recommended that anodes are not fitted to face plates of high tensile steel longitudinal.

2.4 Aluminum and magnesium anodes

2.4.1 Aluminum and aluminum alloy anodes are permitted in tanks used for the carriage of oil, but only at locations where the potential energy does not exceed 275 [J] (i.e. 28 [kgf.m]. The weight of the anode is to be taken as the weight at the time of fitting, including any inserts and fitting devices.

2.4.2 The height of the anode is, in general, to be measured from the bottom of the tank to the centre of the anode. Where the anode is located on or closely above a horizontal surface (such as a bulkhead girder) not less than 1 [m] wide, provided with an upstanding flange or face plate projecting not less than 75 [mm] above the horizontal surface, the height of the anode may be measured above that surface.

2.4.3 Aluminium anodes are not to be located under tank hatches or tank cleaning openings unless protected by adjacent structure.

2.4.4 Magnesium or magnesium alloy anodes are permitted only in tanks intended solely for water ballast.

2.5 Corrosion protection coatings for salt water ballast spaces

2.5.1 In case of vessels which normally carry sail water for ballast purposes, all ballast spaces, having boundaries formed by the hull envelopes, are to have a suitable corrosion protection coating applied in accordance with the manufacturer's requirements.

Section 3

Deck Covering

3.1 General

3.1.1 Where plated decks are sheathed with wood or an approved composition, reductions in plate thickness may be allowed.

3.1.2 The steel deck is to be coated with a suitable material in order to prevent corrosive action, and the sheathing or composition is to be effectively secured to the deck.

3.1.3 Deck coverings in the following positions are to be of a type which will not readily ignite where used on decks:

a) forming the crown of machinery or cargo spaces within accommodation spaces of cargo vessels

b) within accommodation spaces, control stations, stairways and corridors of passenger vessels.

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Chapter 3
Principles for Scantlings and Structure Details

Contents

Section	
1	General
2	Corrosion Additions
3	Plating
4	Stiffeners and Girders
5	End Attachments
6	Buckling

Section 1

General

1.1 Application

1.1.1 Scantlings of various plating, stiffeners and girders to meet the local strength requirement are to be determined in accordance with the general principles given in this Chapter.

The design values of loads are given in chapters relevant to the structures under consideration.

1.1.2 Scantlings of hull members contributing to the longitudinal strength are also to comply with the requirements of Ch. 4

1.1.3 Scantlings of hull members subjected to compressive stresses are also to comply with The requirements of Sec. 6.

1.2 Symbols

p = design pressure [kN/m^2] as given in -the relevant chapters calculated at The load point as given below;

Loadpoint for plates;

- midpoint of horizontally stiffened plate field
- half the stiffener spacing above the lower support of vertically stiffened plate field, or at the lower edge of plate when the thickness is changed within the plate field.

Load point for stiffeners:

- midpoint of span.

Load point for girders

- midpoint of load area supported by The girder.

s = stiffener spacing [mm], measured along the plating.

l = span of The stiffener, [m], in accordance with 4.1.1.

r = radius of curvature [mm].

S = span of the girder [m], in accordance with 4.1.2.

b = mean breadth [m], of The load area supported by the girder.

h_w = height of web, [mm), b, = width of flange,

[mm].

q = allowable bending stress, [N/mm^2] as given in the relevant Chapters.

Q_y = minimum yield stress of material, [N/mm^2], may be taken as 235 [N/mm^2] for normal strength steel.

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k = material factor as defined in Ch.2, Sec.1.2.

E = modulus of elasticity, 2.06 x 105 [N/mm^2] for steel.

1.3 Frame spacing

1.3.1 The normal frame spacing between aft peak and 0.2L from F.P. may be taken as:

450 + 2L [mm] for transverse framing

550 + 2L [mm] for longitudinal framing.

1.3.2 In aft peak and fore peak the frame spacing is not to exceed 600 [mm] or that given in 1.3.1, whichever is less.

1.3.3 Where the actual frame spacing is higher than that mentioned above, the minimum thicknesses of various structural members as given in the Rules may require to be increased.

Section 2

Corrosion Additions

2.1 General

2.1.1 The thickness of plates, stiffeners and girders in tanks for water ballast and/or cargo oil and in holds of dry bulk cargo carriers is to be increased by a corrosion addition V as given in Table 2.1.1.

2.1.2 The required corrosion addition 'Z_c' to the section modulus of stiffeners and girders due to the thickness addition 't_c' mentioned above may be approximated as:

$$Z_c = \frac{t_c h_w (b_f + 0.3h_w)}{1000} [cm^3]$$

Table 2.1.1 : Corrosion addition t_c [mm]

Item	Space Category	t_c
Internal members within and plate boundary between spaces of the given category	Ballast tank	1.5 [1)]
	Cargo oil tank	1.5
	Hold of dry bulk cargo carriers	2
Plate boundary between the two given space categories	Ballast tank/Cargo oil tank	1.5 [1)]
	Ballast tank/Hold of dry bulk cargo carrier	2
	Ballast tank/Other category space	1.0
	Cargo oil tank/Other category space	1.0
	Hold of dry bulk cargo carrier/Other category space	1.0

Notes:
1) Where the relevant ballast or liquid cargo tanks extend upto the exposed weather deck the minimum corrosion addition in the region extending upto 1.5 [m] below the weather deck corrosion addition is to be increased by 0.5 [mm].
2) Hold of dry bulk cargo carriers refers to the cargo hooks of vessels with class notation Bulk Carrier and Ore Carrier.
3) Other category space denotes the hull exterior and all spaces other than water ballast and cargo oil tanks and holds of dry bulk cargo carriers.

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Section 3
Plating

3.1 General

3.1.1 Minimum requirements of thickness of various platings are given in relevant chapters.

3.1.2 The thickness T of plating subjected to lateral pressure is not to be less than

$$t = \frac{15.8s\sqrt{p}}{\sqrt{\sigma}} x10^{-3} + t_c[mm]$$

3.1.3 Any tapering of thickness of platings contributing to the longitudinal strength is to be based upon linear variation of stress s allowed at specified regions.

Section 4
Stiffeners and Girders

4.1 Determination of span

4.1.1 For stiffeners, The span 'l' [m] is to be taken as The length of the stiffener between The two supporting members less the depth of stiffener on crossing panel if any. Where brackets larger than those required in 5.1.2 are fitted, the span may be determined as shown in Fig.4.1.1.

For curved stiffeners, 'l' may be based on the chord length,

4.1.2 For girders, the span 'S' [m] is to be taken as The length of the girder between The two supporting members, less The web height of in-plane girder if any. and the correction for bracket 'b_c'. as shown in Fig.4.1.2.

4.2 Effective width of attached plating

4.2.1 The area of The attached plating, to be used in the calculation of sectional properties of the stiffeners and gilders, is to be taken as the cross-sectional area within The effective width of the attached plating.

4.2.2 The effective width of plating attached to a stiffener may be taken as the mean of spacings on either side of the stiffener.

4.2.3 The effective width of plating attached to a girder, 'be' is to be taken as per the following:

$$b_e = c \cdot b$$

where,

c = c_1 for girders with uniformly distributed loads or with six or more evenly spaced point loads

= c_2, for girders with three or less evenly spaced point loads.

Table 4.2.3. : Values of "C"

a/b	0.5	1.0	2.0	3.0	4.0	5.0	6.0	≥ 7.0
C_1	0.19	0.38	0.67	0.84	0.93	0.97	0.99	1.00
C_2	0.11	0.22	0.40	0.52	0.65	0.73	0.78	0.80

For intermediate values of a/b and number of point toads, values of 'c' may be obtained by interpolation.

a = span of the girder, for simply supported girders, [m].

= 60 per cent of span of the girder, for girders fixed at both ends. [m].

4.2.4 In case of girders on corrugated bulkheads which run across the corrugations, the effective width of attached plating is to be taken as 10% of that obtained from 4.2.3.

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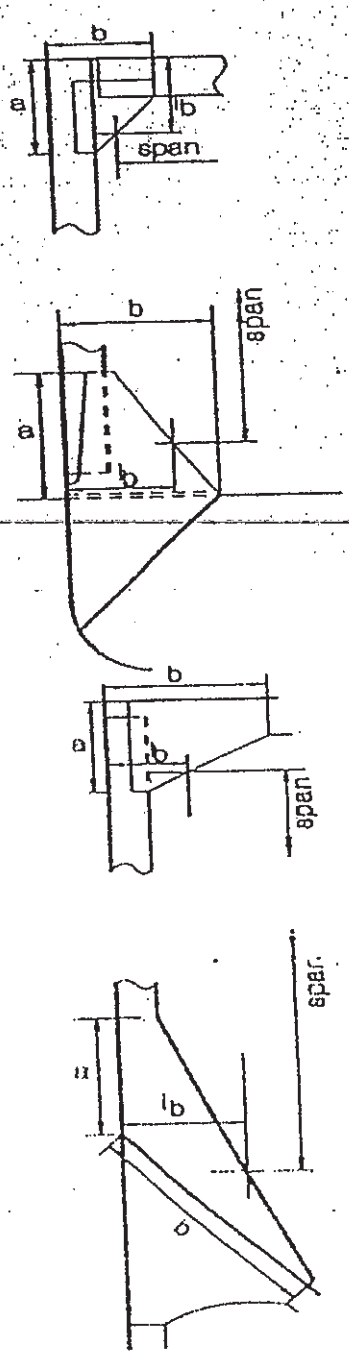
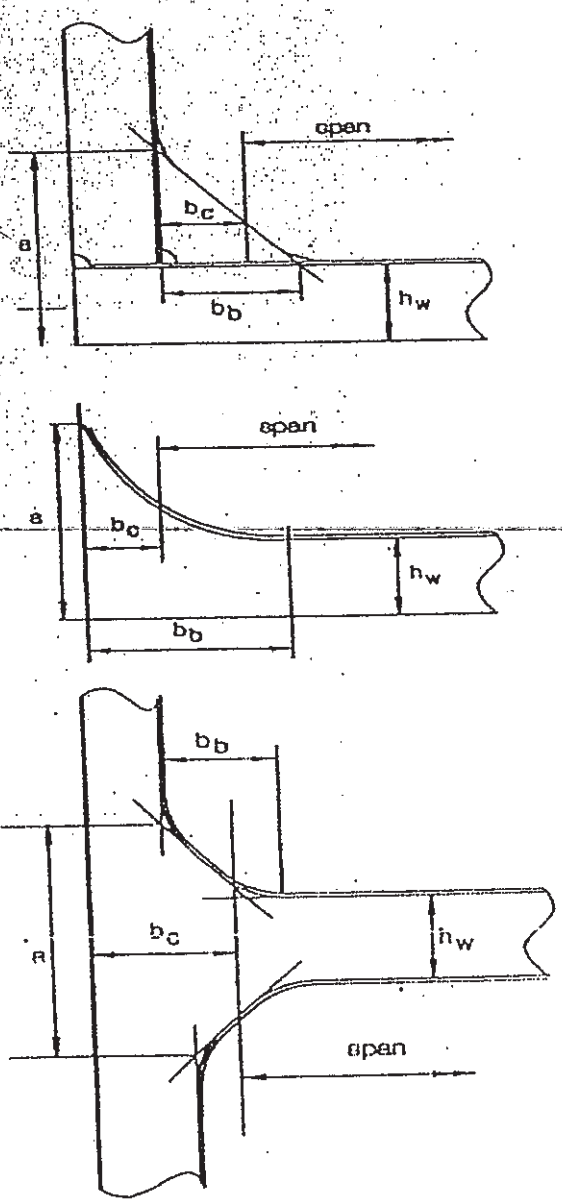


Fig.4.1.1



$b_c = b_b (1 - h_w/a)$

Fig.4.1.2

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4.2.5 The effective cross sectional area of the attached plating is not to be less than that of the face plate.

4.3 Scantlings of stiffeners

4.3.1 The section modulus 'Z' of softeners subjected to lateral pressure is not to be less than:

$$Z = \frac{s.p.l.^2}{-m\sigma} + Z_c[cm^3]$$

where.

m = bending moment factor depending on the arrangement at the supports and variation of lateral pressure as given in the relevant chapters. Where not stated, The "m' value may generally be taken as:

= 12 for continuous longitudinal stiffeners

= 10 for transverse, vertical and non-continuous longitudinal stiffeners fixed at both ends.

= 8 for stiffeners simply supported at both ends.

4.3.2 Where stiffeners are not perpendicular to the plating, the section modulus as obtained from 4.3.1 is to be increased by the factor (1/cos a). a being the angle between the stiffener web and the plane perpendicular to the plating.

4.4 Scantlings of girders

4.4.1. The scantlings of simple girders subjected to lateral pressure which can be considered as conforming to the general beam theory are to satisfy the requirement given in 4.4.2.

4.4,2 The section modulus 'Z' of girders subjected to lateral pressure is not to be less than:

$$Z = \frac{b.p.s^2.10^3}{m\sigma} + Z_c[cm^3]$$

where,

m = bending moment factor depending upon the arrangement at supports and variation of lateral pressure as given in the relevant chapters. Where not stated, the 'm' value may generally be taken as 12 for continuous longitudinal girders and 10 for all other girders.

4.4.3Where openings are cut in the girder web, they are to be away from the girder ends and scallops for stiffeners; with their centre located as near to the neutral axis of the girder as practicable. Openings of depth exceeding 25% of the girder depth or 300 [mm] and, of length exceeding the depth of the girder or 60% of the secondary stiffener spacing, are to be reinforced all around at the edge; or alternatively by providing horizontal and vertical stiffeners.

4.4.4 Girders are to be provided with adequate lateral stability by tripping brackets titled generally at every fourth stiffener. Tripping brackets are also to be filled at the toes of end brackets and in way of concentrated loads such as heels of pillars or cross ties.

Section 5
End Attachments

5.1 End attachments of stiffeners

5.1.1 Continuity of all stiffeners participating in longitudinal strength is to be maintained over transverse members within 0.5L amidvessels. Longitudinal bulling at transverse members may be accepted provided the brackets connecting the ends of the longitudinal are of adequate size and are either continuous or properly aligned.

5.1.2 Scantlings of brackets fitted on stiffeners not participating in the longitudinal strength are not to be less than the following:

- The arm lengths, 'a and b' (see fig. 4.1.1) are to be such that :

i) a, b $\geq$ 0.8 L_B

and

ii) a + b $\geq$ 2.0 l_b

Where

lb = 24 $\sqrt{Z}$ + 75[mm]

- Thickness of unfledged bracket is to be not less than

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$t = (4.0 + 0.3\sqrt{Z}) + t_c[mm]$

- Thickness of flanged bracket is to be not less than:

$t = (3.0 + 0.25\sqrt{Z}) + t_c[mm]$

- Width of flange, w £ 40 + Z/25 [mm], but not to be less than 50 [mm].
where,

Z is The section modulus [cm3], of the smaller stiffener, being connected.

5.2 End attachments of girders

5.2.1 The end attachments and supporting structure of the girders are to provide adequate resistance against rotation and displacement of the joint and effective distribution of the load from the member. Supporting members to which the girders are being connected, may require addition strengthening to provide adequate stiffness to resist rotation of the joint. Where the end attachment provides only a low degree of restraint against rotation, the girder is generally to be extended beyond the point of support by at least two frame spaces before being gradually tapered.

Connections between girders forming 3 ring system are to be such as to minimize stress concentrations at the junctions. Integral brackets are generally to be radiused or well rounded at the toes.

Where the face plate of the girder is not continuous over the bracket, the free edge of the bracket to be stiffened and the face plate of the girder is to be extended well beyond the toe of the bracket.

5.2.2 The thickness T of brackets on girder is not to be less than that of the girder web.

The arm length 'a' including the depth of girder is not to be less than:

$a = 83\sqrt{(Z/t)}[mm];$

where,

Z_c = the section modulus [cm^3], of the girder to which the bracket is connected.

The cross sectional area W of the face plate on the girder bracket is not to be less than;

$$A_1 = 0.001\ l_t\ [cm^2]$$

Where 1_t is the length [mm], of the free edge of the bracket.

Additional stiffeners parallel to the bracket 'ace plate are to be fitted on webs of large brackets. The aim length of an unstiffened triangular end panel of bracket is generally not to exceed 100 1 [mm].

Section 6
Buckling.

6.1 General

6.1.1 The critical buckling stress σ_{cr} of plate panels and other members subjected to compressive loads is to be such that:

$$\sigma_{cr} \geq \frac{\sigma_c}{\eta}$$

Where

σ_c = compressive stress to be considered as per Sec.6.3

η = 1.0 for deck, longitudinally stiffened side shell and single bottom plating

= 0.9 for bottom, inner bottom plating in double bottom and transversely stiffened side shell plating.

$= \frac{0.7}{1+1_m/i}$ (need not be taken smaller than 0.3);

- for axially loaded members such as pillars, cross-bes. panting beams etc.. in general.
-to be reduced by 15 per cent where the loads are primarily dynamic in nature.

- for 'l_m' and 'l' See 6.2.2.

6,1.2 The critical compressive buckling stress 'σ_{cr}' determined as follows is not to be less than

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the maximum compressive stress developed in the member is under consideration.

$\sigma_{cr} = \sigma_E$ When $\sigma_E < 0.5\,\sigma_V$

$= \sigma_y\left(1-\frac{\sigma_y}{4\sigma_E}\right) when \sigma_E > 0.5\sigma_y$

where.

σ_E = ideal elastic buckling stress as per Sec.6.2.

6.2 Ideal elastic buckling stress

6.2.1 The σ_E value for platings may be taken as:

$\sigma_E = 0.9\,K\,E[(T - T_C)\,S]^2\ [N/mm^2]$

where.

$K = \frac{8.4}{\psi+1.1}$

- for plating with stiffeners in the direction of the compressive stress

$= C\left[1+\left(\frac{s}{10001}\right)^2\right]^2 \cdot \frac{2.1}{\psi+1.1}$

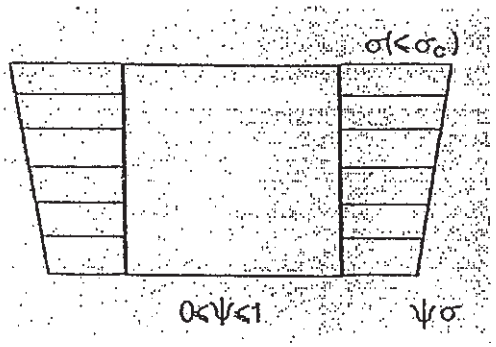
- for platings with stiffeners in the direction perpendicular to the compressive stress

ψ = ratio between the smaller and the larger values of the compressive stress assuming a linear variation (See Fig.6.2.1)

C = 1.30 when plating is stiffened by floors or deep girders

= 1.21 when stiffeners are angles or T sections

= 1.10 when stiffeners are bulb flats



= 1.05 when stiffeners are flat bars

s = shorter side of plate panel, [mm]

l = longer side of plate panel, [m]

6.2.2 The value for axially loaded members may be taken as:

$\sigma_E = 0.001\,C\,E\,(i/l_m)^2\ [N/mm^3]$

C = 1.0 for both ends hinged

= 2.0 for one end fixed

= 4.0 for both ends fixed

i = radius of gyration of the member, [cm].

= (I / a)

I = moment of inertia of the member, [cm^4], about The axis perpendicular to The direction of buckling being considered

a = cross sectional area of the member, [cm^2]

l_m = length of the member, [m].

Where end connections of a member are different with respect to the two principal axes, σ_E is to be found out for both cases using appropriate values of 'C and I,

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Chapter 4

Longitudinal Strength

Contents

Section	
1	General
2	Vertical Bending Moments
3	Hull Section Modules and Moment of Inertia
4	Opening in Longitudinal strength Members

Section 1
General

1.1 Application

1.1.1 Scantlings of hull members contributing to longitudinal strength are to comply- with the requirements given in this Chapter. These members are also to comply with the requirements of buckling strength given in Ch.3, Sec.6 and of local strength given in relevant chapters of Pl,3.

1.1.2 Still water bending moments are to be calculated for all vessels with unusual or non-uniform weight or cargo distribution and for other vessels of L > 60 m.

Such vessels are to be provided with an approved loading manual which describes the loading conditions on which the design is based and also gives the values of still water bending moments and permissible limits.

1.2 Symbols

L, B, T, k as defined in Ch.1. Sec,2,

I_n = moment of inertia of hull girder, [cm4], about the transverse neutral axis al the section under consideration.

Z_n = vertical distance [m] of The horizontal neural axis above base line.

M_s = design still water bending moment [kN-m] as given in 2.1,2.

M_w = rule wave bending moment [kN-m] as given in 2.2.1.

Section 2
Vertical Bending Moments

2.1 Still water bending moment

2 11 Still water bending moments are to be calculated for the following loading conditions as a minimum:

a) Fully loaded condition with design cargo distribution(s)

b) Light condition with full consumables, stores, crew and ballast, if any.

In addition other loading conditions which may be more onerous, e.g. intermediate conditions of special loading or discharging sequences, are to be investigated.

2.1.2. The design value of still water bending moment Ms at 0.4L amid vessels is to be taken as the greater of the following:

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a) The maximum of sagging or hogging still water bending moments obtained for the loading conditions specified in Sec.2.1.1, and

b) $0.375\ L^2B$ [kN-m]

At locations outside 0.4L amidvessels the design value of still water bending moment Ms may be linerally reduced to zero at perpendiculars.

2.2 Wave toad conditions

2.2.1 The rule vertical wave bending moment M_w for 0.4L amidvessels is to be taken as

$$M_w = C\,L^2\,B\,[\,kN-m\,]$$

where.

C = coefficient as per Table 2,2.1.

Table 2.2.1	
Zone	Coefficient C
1	0.30 for $L \leq 20$ m $0.3 + 0.05\,(L-20)$ for $20 < L < 60$ 0.5 for $L \geq 60$ m
2	0.3
3	0.15

At locations outside 0.4 L amidvessels, the value of rule wave bending moment Mw is to be linerally reduced to zero at perpendiculars,

Section 3
Hull Section Modulus and Moment of India

3.1 Calculation of section properties

3.1.1 When calculating the moment of inertia and section module, the net-sectional area (after deduction for openings) of all continuous longitudinal strength members is to be taken into account. Small isolated lightening holes in girders need from be deducted.

Superstructures not forming strength deck (See Ch,1. Sec.2.2). deckhouses, bulwarks and non-continuous longitudinal hatch coamings are not to be included in the above calculations.

In case of vessels with continuous trunks 01 longitudinal hatch coamings, their net sectional area may be included in the' calculations provided they are effectively supported by longitudinal bulkheads o: deep "girders. The section modulus at deck however, is then to be calculated as given in 3.1.3.

3.1.2 The main strength members included in the calculation of hull moment of inertia and section modulus are to extend continuously through the cargo region and sufficiently far towards the ends of the vessel. Longitudinal bulkheads are to terminate at effective transverse bulkheads and large transition brackets are to be fitted in line with the longitudinal bulkheads.

3.1.3 The midvessel section modulus 'Z' at deck or bottom about the transverse neutral axis is to be obtained as follows:

$$Z = I_n / (100.z) \quad [cm^3]$$

where.

z = the vertical distance [m] from the horizontal neutral axis upto the strength deck at side or the base line, as relevant.

However, in case of vessels where continuous trunks or longitudinal hatch coamings are to be included in the section modulus calculation as per Sec.3.1.1, the distance z for calculation of modulus at deck is to be taken as the greater of the following:

z = z as above

$z = z_n\,[0.9 + 0.2\,y/B]$

where,

z_n = the vertical distance from the horizon la l neutral axis to top of continuous strength number.

y = athwart vessel distance from the centerline of the vessel to the side of the strength member.

Zn and y are to be measured to the point giving the largest value of z.

3.2 Extent of high tensile steel

3.2.1 Where high tensile steels are used in the main hull structure in order to reduce the section modulus requirement, the vertical and longitudinal extent of its use is to be such that

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adjacent structure made or ordinary hull structural steel is not stressed beyond the stress level permissible for ordinary steel,

3.3 Section modulus requirement

3.3.1 At any transverse section, the hull section modulus Z, about the transverse neutral axis for the still water bending moments M_s given in 2.1 and wave bending moments M_w given in 2.2, is not to be less than:

$$Z = \left(\frac{M_s + M_w}{\sigma_L} \right) X10^3 [cm^3]$$

where,

σ_L = 175/k [N/mm^2] within 0.4L amidvessels

= 125/k [N/mm^2] within 0.1L from A.P. and F,P,

Between the specified regions σ_L is to be obtained by linear interpolation.

3.3.2 Scantlings of all continuous longitudinal members of hull girder based on The section modulus requirement in 3.3.1 are to be maintained within 0.4L amidvessels.

In the region outside 0,4L amidvessels, the scantlings ate to be gradually tapered to the local requirements at ends.

3.4 Moment of inertia requirement

3.4.1 The moment of inertia I_n, or the hull section about the transverse neutral axis, at midvessel, is not to be less than:

$$I_n = 3\ L.Z\ [cm^4]$$

where.

Z = Hull section modulus amidvessels as required by 3.3.1.

Section 4

Openings in Longitudinal Strength Members

4.1 Locations

4.1.1 As far as practicable, openings are to be avoided in the keel plate and in the bilge plate within 0.6L amidvessels.

4.1.2 Openings in the strength deck within 0.6L amidvessels are as far as practicable to be located inside The line of large hatch openings. Necessary openings outside this line are to be kept well clear of the vessel's side and hatch cornets.

4.1.3 Small openings are generally to be kept well clear of other openings in the longitudinal strength members.

4.2 Reinforcements

4.2.1 All openings are to be adequately framed and arrangements in way of corners and openings are to be such as to maintain structural continuity and minimize the creation of stress concentrations.

Corners of hatchways are to be reinforced as given in Ch.8, Sec.2. Smaller openings in the strength deck and outer bottom within 0.6L amidvessers are to be reinforced as given in 4.2.2 to 4,2.5 below. The area of these reinforcements is not to be included in the sectional areas used in the section modulus calculation.

4.2.2 Circular openings with diameter equal to or greater than 0.325 [m] are to have edge reinforcement having sectional area A not to less than:

$$A = 2.5\ b.t.\ [cm^2]$$

where.

b = diameter of the opening [m]
t = thickness of the plating [mm].

4.2.3 Elliptical openings are to have their major axis in the fore and aft direction. Where the ratio of the major axis to minor axis is less than 2, the openings are to be reinforced as given in 4.2.2 taking b as the breadth of the opening (minor axis).

Rectangular openings are to have their corners well rounded. Where corners are of circular shape the radius is not to be less than 20 per cent of the breadth of the opening and the edges are to be reinforced as given in 4.2.2 taking b as the breadth of the opening.

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Where corners are of elliptical shape as given in 4.2.3 or of streamlined shape as given in 4.3, the reinforcement will generally not be required provided that the transverse extension of the curvature.' a. shown in Fig. 4.3.2 is not less than:

$$a = 0.15b \text{ [m]}$$

4,2.5 Openings in side shell subjected to large shear stresses are to be of circular shape and are to be reinforced as given in 4.2.2 irrespective of the size of opening.

4.3 Hatchway corners

4.3.1 Where corners are of circular shape, the radius \ within 0.6L amidvessels is not to be less than

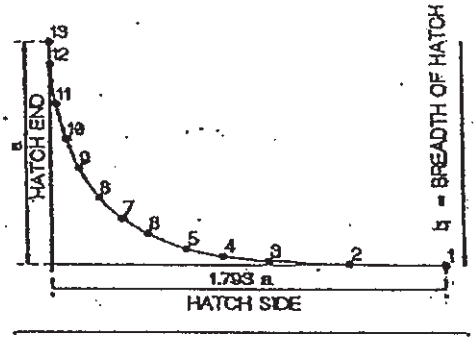
$$r = 0.05\ b \text{ [m]}, \text{ minimum } 0.3 \text{ [m]}$$

where,

b = breadth of the hatchway [m]

4.3.2 Where corners are of streamlined shape, as given by Fig. 4.3.2, the transverse extension of the curvature, a. is not to be less than

$$a = 0.05\ b \text{ [m]}, \text{ minimum } 0.3 \text{ [m]}$$



Ordinates of streamlined corner		
Point	Abscissa - x	Ordinate - y
1	1.793 a	0.0
2	1.381 a	0.002 a
3	0.987 a	0.021 a
4	0,802 a	0.044 a
5	0.631 a	0.079 a
6	0.467 a	0,131 a
7	0,339 a	0.201 a
8	0.224 a	0.293 a
9	0.132 a	0.408 a
10	0.065 a	0.548 a
11	0.022 a	0.712 a
12	0.002 a	0.899 a
13	0.0	1.000 a

Fig. 4.3.2 : Streamlined deck corner

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Chapter 5

Bar Keel, Stem and Stern frames

Contents

Section	
1.	General
2.	Bar Keel
3	Steam
4	Stern Frames

Section 1

General

1.1 Scope

1.1.1 This chapter provides requirement for bar keel, bar stem, stern frames and shaft brackets.

1.2 Material

1.2.1 All steel plates and sections, castings and forgings used in the constructions are to be listed and approved in accordance with the requirements of Ch.3, Ch.4 and Ch.5 of Pt.2 'Materials' of the Rules & Regulations (or the Construction and Classification of Steel Vessels (Main Rules), respectively. Material grades for plates and sections are to be selected as per Pt. 3, Ch.2,

1.2,2 Bar keels and stems may either be steel castings or forgings or rolled plates or bars.

1.2.3 Sternframes. rudder horns and shall brackets may be constructed of cast or Forged steel or may be fabricated from plates,

1.3 Symbols

1.3.1 L. T as defined in Ch.1. Sec.2.

Section 2

Bar Keel

2.1 Scantlings

2.1.1 The scantlings of bar keel are not to be less than ;

Depth = 75 + 0.75 L [mm]

Thickness = 10 + 0.4 L. [mm]

Minor deviations from the above values may be accepted provided the required sectional area is maintained.

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Section 3

Stem

3.1 Bar stem

3.1.1 The cross sectional area 'A' of a bar stem, below the summer load waterline, is not to be less than

$A=0.6L\ [cm^2]$; or $12\ [cm^2]$

whichever is greater.

3.2 Plate stem

3.2.1 The thickness 't' of the plate stem below the summer load waterline is not to be less than:

$t = (0.08\ L + 5.0)$ [mm]

3.2.2 The thickness of the plate stem may be gradually reduced to that of the side shell at the stem head.

3.2.3 The plate stems are to be supported by horizontal diaphragms spaced not more than 1.0 [m] apart. Where the stem plate radius is large, a centreline stiffener or web is to be provided.

Section 4

Stern Frames

4.1 General

4.1.1 Slemframes, shaft brackets etc. are to be designed such, that they are effectively integrated into the vessel's structure.

4.1.2 In castings, sudden changes of section or possible constrictions to the flow of metal during castings are to be avoided. All fillets are to have adequate radii, which in general should not be less than 50 to 75 (mm), depending on the size of the casting.

4.1.3 Fabricated and cast steel stern frames are to be strengthened al intervals by webs spaced not more than 700 [mm] apart. In way of the upper part of the slernframe arch, these webs are to line up with the floors.

4.1.4 Rudder posts and propeller posts are to be connected to floors of increased thickness.

4.1.5 It is recommended that the after body of the vessel be so shaped as to ensure adequate flow of water to the propeller so as to prevent uneven formation of eddies, as far as possible.

4.2 Sternframes

4.2.1 The scantlings of the propeller posts are not to be less than the following:

Forged propeller posts (see Fig. 4.2,1 (a))

$A = (8 + 0.4L)\ T\ [cm^2]$ for $L < 60$ [m]

$= 32\ T\ [cm^2]$ for $L > 60$ [m]

Fabricated propeller posts (see Fig. 4.2.1 (b)).

$l = 150\ \sqrt{T}$ [mm]

$w = 100\ \sqrt{T}$ [mm]

$r = 18\ \sqrt{T}$ [mm]

$t_1 = 11\ \sqrt{T}$ [mm]

$t_w = 5 - \sqrt{T}$ [mm]

Cast steel propeller posts (see Fig. 4.2.1 (c))

$l = 125\ \sqrt{T}$ [mm]

$w = 85\ \sqrt{T}$ [mm]

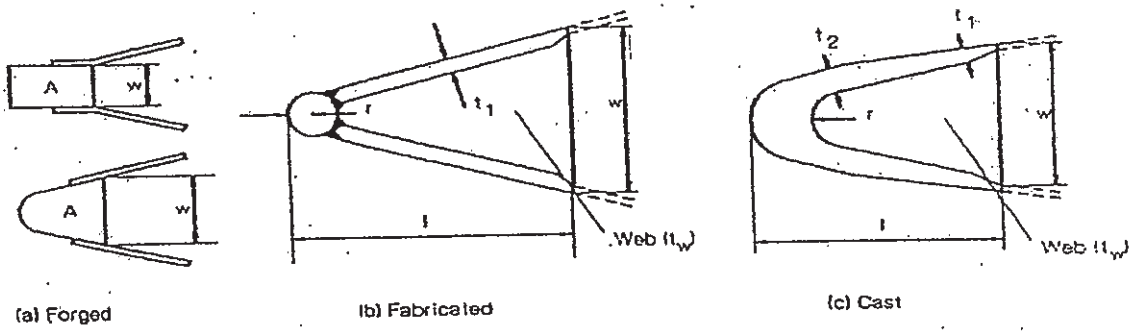
$r = 20\ \sqrt{T}$ [mm]

$t_1 = 12\ \sqrt{T}$ [mm]

$t_2 = 14\ \sqrt{T}$ [mm]

$t_w = 7\ \sqrt{T}$ [mm]

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(a) Forged (b) Fabricated (c) Cast

Where the sections adopted differ from the above, the section modulus about the longitudinal axis is to be equivalent to that with the Rule scantlings.

On sternframes without sole pieces, the modulus of the propeller post, about the longitudinal axis. may be gradually reduced by 15 per cent below the propeller boss, provided the thicknesses are maintained as above.

4.2.2 The wall thickness of the boss 't_b' in the propeller post is not to be less than :

$$t_b = 0.25d_{ts} + 12 \text{ [mm]}$$

where.

d_{15} = Rule diameter of tail shaft, [mm],

In fabricated stern frames the connection of the propeller post to the boss is to be by full penetration welds.

4.3 Sole piece

4.3.1 The section modulus "ZT" of the sole piece against transverse bending is not to be less than

$$Z_T = \frac{1}{90} \frac{cF_r x}{b} [cm^3]$$

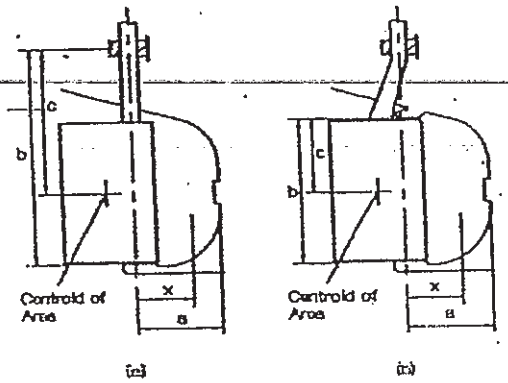
Where

F_r = Rudder force [N] as defined in Pt. 3, Ch. 12. Sec. 3

X = distance of the cross section under consideration from the centre line of rudder stock, [m] 'X' is not to be taken as less than a/2.

a, b, c = as shown in Figures 4.3.1 (a) and (b) [m]

The above requirement of Z_T is to be increased by 15 percent for cast steel sole pieces.



(a) (b)

Fig. 4.3.1 : Open stern frame

4.3.2. The section modulus 'Z_v' of the sole piece against vertical bending is not to be less than :

$$Z_v = \frac{Z_T}{2} [cm^3]$$

4.3.3. The sectional area of sole piece is not to be less than

$$A_s = \frac{1}{5400} \cdot \frac{c.F_l}{b} [cm^2]$$

4.3.4. The sole piece is to extend at least two frame spaces forward of the forward edge of the propeller boss and beyond this, the cross section of the extension is to be gradually

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reduced to that necessary for an efficient connection to the keel plate. Fabricated sole pieces are to have adequate internal stiffening.

4.4 Shaft brackets

4.4.1Where the propeller shafting is exposed to the sea for some distance clear of the main hull, it is generally to be supported adjacent to the propeller by independent brackets having two arms, it is recommended that the angle included between the arms differs from the angle included between the propeller blades. In very small vessels the use of single arm brackets will be considered.

4.4.2 Fabricated brackets are to be designed to avoid or reduce the effects of hard spots and ensure a satisfactory–connection to the hull structure. The connection of the arms to the bearing boss is to be by full penetration welding.

4.4.3. Generally, bracket arms are to be carried through the shell plating and attached to floors or girders of increased thickness, The shell plating in way of shaft brackets is to be increased in thickness. to a minimum of 1.5 times the Rule bottom shell plating thickness amidvessels. In way of the bracket arms an insert plate is to be provided of thickness not less than:

$t = 1.6 \sqrt{d_{ts}}$ where d_{ts} is the tailshaft diameter.

The connection of The bracket arms to the shell plating is to be by full penetration Welding.

4.4.4 The scantlings of solid or built-up shaft brackets are to comply with The following:

$t = 0.4\ d_{ts}$ [mm]

$A = 4.5\ d_{ts}^2 - 10\text{-}3$ [cm^2]

$Z_T = 30\ d_{ts}3 - 10^{-6}$ [cm^3]

where,

t = thickness of The bracket arms

A = cross sectional area of the bracket arms

Z_T = Section modulus of The bracket arms against transverse bending

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Chapter 6
Bottom Structure

Contents

Section	
1	General
2	Structural Arrangement and Details
3	Design Loads
4	Bottom and Inner Bottom Plating
5	Single Bottom
6	Double Bottom
7	Engine Seatings

Section 1
General

1.1 Scope

1.1.1 The scantlings and arrangement of bottom structure as defined in Ch. 1, Sec. 2 are to comply with the requirements given in this Chapter.

1.2 Symbols

L, B, T, C_b, k as defined in Ch. 1 Sec. 2,

s = spacing of stiffeners, [mm]

l = span of stiffeners, [m]

b = spacing of girders, [m]

S = span of girders [m]

t_c, Z_c are corrosion additions to the thickness and section modulus respectively, as given in Ch. 3 Sec. 2.1.

$$f_B = \frac{Z_R}{Z_B}$$

Where

Z_R = Rule midvessel section modulus [cm^3] as required by Ch. 4.

Z_B = Actual midvessel section modulus [cm^3] provided at bottom.

Section 2
Structural Arrangement and details

2.1 General

2.1.1 Depth of wells constructed in the double bottom, in the connection with the drainage arrangement of holds, is to be kept in the minimum.

2.1.2 The continuity of the bottom, bilge and inner bottom longitudinal is to be maintained in accordance with Ch. 3, Sec. 5.1.1.

2.1.3. The bilge keel and the ground bar to which it is attached, are to be gradually iapered at ends and arranged to finish in way of suitable.

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internal stiffening. Butt welds in the bilge keel and the ground bar are to be well clear of each other and those in the shell plating.

2.1.4 The weld connections are to comply with the requirements of Ch.16.

2.2 Access, ventilation and drainage

2.2.1 Adequate access is to be provided to all parts of the double bottom. Where the vertical dimension of the lightening hole exceeds 50 percent of the web height adequate reinforcements are to be provided. The diameter of lightening holes in the bracket floors is not to exceed 1/3 of the breadth of the brackets. Lightening holes or manholes are normally not to be cut in floors or girders towards their ends and under large pillars or supporting structures. Manholes in inner bottom are to have reinforcement rings, and the man hole covers in the inner bottom plating in cargo holds are to be effectively protected. The edges of all holes are to be smooth.

2.2.2 To ensure the free passage of air and water from all pals of the tanks to air pipes and suctions, air and drain holes are to be provided in all non-watertight members. The air holes are to be placed as near to the inner bottom as possible and their total area is to be greater than The area of the filling pipes. The drain holes are to be placed as near to the bottom as possible.

2.2.3. The access opening to pipe tunnel is to be visible above the floor plates and is to be fitted with a rigid watertight closing device. A notice board staling that the access opening to the pipe tunnel is to be kept closed, is to be fitted near the opening. The opening, is to be regarded as an opening in watertight bulkhead.

Section 3

Design Loads

3.1 Bottom Shell

3.1.1. The Design pressure 'p' [kN/m^2] on outer bottom is to be taken as

$P = 10\ T_1$ [kN/m^2]

T_1 to be obtained from Table 3.1.1.

Table 3.1.1 : Values of T_1	
Zone	T_1
1	T + 1.0 [m] for L > 60 [m] T + 0.6 [m] for L < 20 [m]
2	T + 0.6 [m]
3	T + 0.3 [m]
For intermediate values of L in Zone 1, T_1 to be Linearly interpolated	

In way of tanks, the design pressure is not to be taken less than internal pressure 'p' given in 3.2.1.

3.2. Watertight ftoors and girders

3.2.1. The design pressure 'p' on watertight ftoors and girders in double bottom tanks is to be taken as the greater of :

$P = 6.7\ h_p$ [kN/m^2]

$P = 10\ (h_s + 1)$ [kN/m^2]

Where

h_p = vertical distance [m], from the toad point to the top of air pipe.

h_s = vertical distance [m] from the load point to top of the tank.

3.3 Inner bottom

3.3.1 The design pressure 'p' on The inner bottom is to be taken as the greater of that given in 3.2.1 and The following:

In way of cargo holds, thè design pressure 'p* is not to be taken as less than:

$$p = 12.5\ pH\ [kN/m^2]$$

where,

p = cargo density [t/m^3] normally not to be taken as less than 0.7 [t/m^3]

H = height [m], to deck or top of hatchway coaming.

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Section 4

Bottom and Inner Bottom Plating

4.1 Keel plate

4.1.1 The width of the plate keel is not to be less than (400+10L) [mm]. The thickness is to be 1 (mm) greater than that required (or the adjacent bottom plating.

4.2 Bottom, bilge and inner bottom plating

4.2.1 The thickness of the bottom and inner bottom plating is to be not less than:

- for bottom plating

$t = (t_o + 0.04L)\ \sqrt{k} + t_c$ [mm]

- for inner bottom plating.

$= (t_o + 0.03L)\ \sqrt{k} + t_c$ [mm] but not less than 6.0 [mm]

Where

t_o = 4.0 [mm], in general.

= 6.0 [mm], for Inner bottom plating where ceiling is not filled.

= 4.0 [mm] for inner bottom plating where wooden ceiling of 50 [mm] thickness is fitted.

4.2.2 The bottom, bilge and inner bottom plating is also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

4.2.3 For vessels discharged by grabs and where no ceiling of fitted, the plating thickness Y of the inner bottom and exposed parts of stopping bulkheads is not to be less than:

$t = 0.0085\ (s+800)\ \sqrt{k} + t_c$ [mm]

4.2.5 Where the inner bottom is subjected to wheel toads from cargo handling vehicles, the scantlings are also to comply with the requirement given in Ch.8., Sec.6.

Section 5

Single Bottom

5.1. Transverse framing

5.1.1 Plate floors of following scantlings are to be fitted at every frame

depth at centerline d = 40B [mm] in general

thickness or web, t = d/100 + 2.5 [mm]

Section modulus

$Z = 0.006\ s.l_f^2.\ T_1$ [cm^3] in cargo holds

$= 0.0072\ s.l_f^2.\ T_1$ [cm^3] in machinery and other spaces

where

l_f = span of floor, measured on the top of floor plate from side to side

= longitudinal bulkheads are provided the span, l_f not to be taken less than 0.4B.

T_1 is as defined in 3.1.1.

The thickness of face plate is not to be less than 1/15 of the face width.

The top of floors, in general, is to be level from side to side. However, in -vessels having considerable rise of floor, the depth of web at 10 per cent of the span from ends, is not to be less than half the depth at centre line.

If the height of floors between engine girders is reduced in way of crankcase, the face plate area is to be suitably increased however the reduced height c normally not to be less man 2/3 of 'd' as given above.

5.1.2 On all vessels one centre girder is to be fitted and in addition side girders are to be fitted such that the spacing of girders doesnot exceed 3.0 (m). The girders are to extend as far forward and aft as practicable and where they are cut at

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transverse bulkheads the longitudinal continuity is to be maintained. Where the bottom structure changes into a double bottom structure, the bottom girders are to extend at least 3 frame spaces into double bottom structures.

The scantlings or the centre girders and side girders are to be not less than that of the floors. The thickness of face plates is not to be less than 1/15 of the face width.

5.1.3 In the after peak of single screw vessels, the height of the floors is to be increased such that their upper edge is well above the stern tube.

5.1.4 Where single bottom in the cargo region is stiffened by transverse frames supported by longitudinal girders, the scantlings of the frames and longitudinal girders are to be determined in accordance with 6.2,3 and 5.2.3, 5.2.4 respectively.

5.2 Longitudinal framing

5.2.1 The spacing of bottom transverses is normally not to exceed 3.0 (m). The bottom transverses are to be supported by primary girders or longitudinal bulkheads. Where the design does not incorporate a centreline bulkhead, at least a docking girder is to be provided. The scantlings of simple girders and transverses are to be obtained in accordance with 5.2.3. The scantlings of a complex girder system are to be based on a direct stress analysis.

5.2.2 The section modulus 'Z' of the bottom longitudinal is not to be less than:

$$Z = \frac{spl^2}{12} + Z_c [cm^3]$$

where,
p = applicable design pressure [kN/m^2], as given in 3.1.1.

a = (215 -140 f_B) / k, max. 160/k [N/mm^3] within 0.4L amidvessels

= 160/k [N/mm^2] within 0.1L from ends.

Elsewhere σ may be obtained by linear interpolation.

5.2.3 The section modulus 'Z' of bottom girders is not to be less than:

$$Z = \frac{10^3 \, b \, p \, S^2}{m \, \sigma} + Z_c \ [cm^3]$$

where,

m = 10 in general

p = applicable design pressure [kN/m^2], as given in 3.1.1.

σ = (190= 130 f_B)/k, max160/k [N/mm^3]
for continuous longitudinal girders within 0.4L amidvessels.

= 160/k [N/mm^2]
for longitudinal girder wonton 0.1L from ends and for transverse girders in general.

Elsewhere s may be obtained by linear interpolation.

5,2.4 Tripping brackets are to be fitted in accordance with the requirements given in Ch.3, Sec.4,4.4.

Section 6

Double Bottom

6.1 General

6.1.1 Where double bottom spaces are used as tanks, the centre girder is to be watertight unless the double bottom is divided by watertight side girders or the tanks are narrow.

The depth 'd' of the centre girder is not to be less than:

d = 250 + 20B + 50 T [mm]
with a minimum of 650 [mm]

In case of vessels with considerable rise of floors the depth 'd' may have to be increased.

6.1.2. The thickness 't' of the bottom girders and floors is not to be less than

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$t = (0.007d+3)\ \sqrt{k}$ [mm].

6.1.3 The section modulus 'Z' of the stiffeners on girders and floors forming boundaries of double bottom tanks is not to be less than:

$$Z = \frac{spl^2}{10\sigma} + Z_c \ [cm^3]$$

where,

p = design pressure [kN/m^2], as given in 3.2.1;

σ = (210 130 f_B)/k, max. 160/k [N/mm^2] for longitudinal stiffeners within 0.4 L amidvessels

= 160/k [N/mm^2] for longitudinal stiffeners within 0.1L from ends and for transverse or vertical stiffeners in general.

Between the regions specified above s for longitudinal stiffeners may be obtained by linear interpolation.

Longitudinal softeners are to have end connections, other stiffeners may be sniped al ends provided the section modulus Z is increased by 40 per cent.

6.1.4 The longitudinal girders are to be satisfactorily stiffened against buckling in accordance with the requiremenls given in Ch.3. Sec.6.

6.2 Transverse framing

6.2.1 The side girders are normally to be fitted at a spacing not exceeding 4.0 [m] and are to be extended as far forward and aft as practicable. The girders are to be stiffened at every bracket floor by a vertical stiffener of depth same as that of reverse frame and thickness that of the girder,

6.2.2 Plate floors are to be fitted under bulkheads, pillars, thrust seating, boiler bearers and in way of change of depth of double bottom. In engine room, plate floors are to be fitted at every frame. Elsewhere plate floors are to be fitted al least every fifth frame, the spacing not exceeding 3 C [m]

6.2.3 Where bracket floors are fitted the section modulus 'Z' of the bottom frames and reverse frames is not to be less than:

$$Z = \frac{Spl^2k}{1.6} + 10^{-3} + Zc \ [cm^3]$$

Where,

p = applicable design pressure [kN/m^2], as given in 3.1.1 and 3.3.1 for bottom frames and reverse frames respectively.

l = span of frames [m] measured between girder or brackets.

Where vertical struts according to 6.2.4 are fitted, the section modulus of bottom and reverse frames may be reduced by 35 per cent.

6.2.4 The cross sectional area 'A' of the struts is not to be less than

$$A = c.k.l.s.T. \ [cm^2]$$

where.

$c = 7x10^{-4}$ in way of ballast tanks

$= 6x10^{-4}$ elsewhere

l = actual span [m], without considering the strut..

The moment of inertia I of the struts is not to be less than:

$I = 2.5\ A.d2\ x\ 10\text{-}6\ [cm^4]$

where,

d = depth of double bottom, [mm].

6.2.5 The bottom frames and reverse frames are to be attached to the centre girder and margin plate by means of brackets of same thickness as that of the plate floors. The breadth o(The brackets is not to be less than 0.75 limes the depth of the centre girder and the brackets are to be flanged 75 [mm] at their free edges.

6.3 Longitudinal framing

6.3.1 The side girders are normally to be fitted at a spacing not exceeding 5.0 [m] and are to be extended as far forward and aft as practicable.

6.3.2 The plate floors are to be filled under bulkheads, pillars, thrust sealing and boiler bearers In engine room plate floors a/e to be fitted a: every second side frames. Additionally, under The main engine seatings, floors extending to the first side girder outside the engine seating, are to be fitted at intermediate frames. The spacing of floors is normally not to exceed 3.0 [m).

6.3.3 The plate floors are to be stiffened at every longitudinal by a vertical stiffener of depth same

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as that or the inner bottom longitudinal and thickness as that of the floor. Between plate floors, transverse brackets are to be field at every frame at the margin plate and at a spacing not exceeding 1.25 [m] on either side of the centre girder. The thickness of brackets is to be same as that of the plate floors. The brackets are to extend upto the adjacent longitudinal and are to be flanged 75 (mm) at their free edges.

6.3.4 The section modulus 'Z' of the bottom and inner bottom longitudinal is not to be less than :

$$Z = \frac{spl^2}{12\sigma} + Z_c [cm^3]$$

where

p = applicable design pressure [kN/m^2], as given in 3.1.1 and 3.3.1 for bottom longitudinal and inner bottom longitudinal respectively;

l = span of longitudinal |m]. measured between the plate floors

a = (210 - 140 f_B)/k |N/mm^2]. maximum 160/k [N/mm^3] for bottom longitudinal within 0.4L amidvessels

= (210 - 100 f_e)/k [N/mm^2], maximum 160/k |N/mm^2] for inner bottom longitudinal within 0.4L amidvessels

a = 160/k [N/mm^2] within 0.1L from ends,
Between The regions specified above, s may be obtained by linear interpolation.

Where vertical struts according to 6.2,4 are Titled, The section modulus of the bottom and inner bottom longitudinal nay be reduced by 35 per cent.

Section 7

Engine Seating

7.1 General

7.1.1 It is recommended that the depth of the floors or double bottom in way of engine foundations be increased.

7.1.2 Sufficient fore and aft girders are to be arranged in way of the main machinery to effectively distribute its weight and to ensure adequate rigidity of the structure. The girders are generally to extend over the full length of the engine room and are to be suitably scalped into The bottom structure beyond.

7.1.3 The scanning of engine sealing are to be adequate to resist gravitational, thrust, torque, dynamic and vibratory forces which may be imposed on them. The recommendations given by the engine manufacturer are also to be taken into account.

7.1.4 Where the top plate of the engine sealing is situated above the floors or the inner bottom, adequate transverse strength by means of brackets in line with the floors is to be ensured. in way of the recess for crankcase, brackets as large as practicable are to be fitted.

7.1.5 Lightening hotes in engine foundations are to be kept as small as practicable and the edges are to be suitably reinforced.

7.2 Recommended scantlings

7.2.1 For engines of power less than 1500 kW and RPM greater than 1200. The scantlings of engine girder face plate, web and floors in way of engine sealing may be calculated as given below. Scantlings for other engines will be specially considered.

Top plate area; A = 20 + 120 (P/R) [cm^2]

Thickness of top plate; t_p = 0.1A + 14 [mm]

Girder web thickness; t_g = O.043A + 7 [mm]

Floor web thickness; t_f = 0.02A + 6 [mm]

Where

P = maximum power of the engine [kW]

R = rpm of engine at maximum power

End Of Chapter

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Chapter 7

Side Structure

Contents

Section	
1.	General
2.	Structural Arrangement and Details
3.	Design Loads
4.	Side shell plating and stiffeners
5.	Girders

Section – 1

General

1.1. Scope

1.1.1 The scantlings and arrangement of side structure as defined in Ch. 1, Sec. 2 and also those of sides of the superstructures are to comply with the requirements of this Chapter.

1.2 Symbols

L, B, T, C_b, k as defined in Ch.1, Sec.2.

s = spacing of stiffeners, (mm).

l = span of stiffeners, [m].

b = spacing of girders, [m].

S = span of girders, [m].

t_c, Z_c = corrosion additions to thickness and section modulus respectively, as given in Ch.3, - Sec. 2.1

$$f_D = \frac{Z_R}{Z_D}$$

$$f_B = \frac{Z_R}{Z_B}$$

$f_s = f_D$ for side shell area above neutral axis

$= f_B$ for side shell area below neutral axis

where,

Z_R = Rule midship section modulus [cm3] as required by Ch.4.

Z_D, Z_B = Actual midship section module [cm^3] provided at deck and bottom respectively.

Section 2

Structural Arrangement and Details

2.1 General

2.1.1 The vessel's side shell may be stiffened longitudinally or vertically.

2.1.2 Where the side shell is stiffened longitudinally, the continuity of the side longitudinals, within a distance of 0.15D from bottom or from strength deck is to be maintained in accordance with Ch.3, Sec. 5.1.1. The web

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frames are to be fitted in line with the bottom Transverses or plate floors.

2.1.3 The position, shape and reinforcement of sea inlets or other openings in side shell are to be in accordance with the requirements of Ch.4.

2.1.4 In the case of superstructures exceeding 0.15L in length and ending within 0.5L amidvessels, the side plating of the superstructures is to be increased by 25 per cent in way of the break.

2.1.5 The thickness of the shell plating is to be increased locally by 50 per cent in way of sternframe, propeller brackets and rudder horn. For reinforcements in way of anchor pockets, hawse pipes etc. refer to Ch.13.

2.1.6 The weld connections are to comply with the requirements of Ch,14.

2.2. Sheer strake

2.2.1 The thickness of sheer strake as obtained from 4.1.3 is to be increased by 30 per cent on each side of a superstructure end bulkhead located within 0.5L amidvessels if the superstructure deck is a partial strength deck.

2.2.2 Where a rounded sheer strake is adopted, the radius in general, is not to be less than 15 times the plate thickness.

2.2.3 Bulwarks are generally not to be welded to the top of the sheer strake within 0.6L amidvessels.

2.2.4 Where the sheer strake extends above the deck stringer plate, the top edge of the sheer strake is to be kept free from notches and drainage openings if any, are to have smooth transition in the longitudinal direction.

Section 3
Design Loads

3.1 External pressure

3.1.1 The design pressure 'p' on side shell is to be taken as per Table 3.1.1.

3.2 Internal tank pressure

3.2.1 Where the side shell forms a boundary of a Sank, the design pressure 'p' is to be taken as the greater of external pressure given by 3.1.1 and the internal tank pressure 'pi' given by 3.2.2.

3.2.2 The internal tank pressure 'pi' is to be taken as the greater of:

$$p_i = 10(h_s + 1) \ [kN/m^2], \text{ or}$$

$$= 6,7hp \ [kN/m^2]$$

Table 3.1.1
Design pressure 'p' pkN/m^2] [a)]

Zone		For load points below the max, Load waterline	For load points above the max, Load waterline
1	L ≥ 60 [m]	$10h_o + \left(15 - 5\frac{h_o}{T}\right)$	$15 - 10\ h_o$
2	L ≤ 20 [m] [b)]	$10h_o + \left(9 - 3\frac{h_o}{T}\right)$	$9 - 10\ h_o$
3		$10\ h_o + \left(5 - 2\frac{h_o}{T}\right)$	5

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a) 'p' is not be taken as less than 5 [kN/m^2]

b) For intermediate lengths (L) in Zone 1, the value of 'p' is to be linearly interpolated.

c) h_O = vertical distance [m], from the maximum load waterline to the load point.

Where,

h_s = The vertical distance [m] from the toad point to the top of tank

h_p = vertical distance [m], from the load point to the top of air pipe.

For very large tanks which may be partially filled, sloshing pressures may have to be considered.

Section 4

Side Shell Plating and Stiffeners

4.1 Side shell plating

4.1.1 the thickness 't' of side shell is not to be less than :

$$t = (4 + 0.04L)\sqrt{k} + t_c \text{ [mm]}$$

4.1.2. The side shell plating is also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

4.1.3. The breadth of the sheer strake is not to be less than 100 D [mm].

Where the thickness of the strength deck plating is greater than that required for side plating, the sheer strake thickness is not to be less than the mean of the two values.

4.2 Side shell longitudinal

4.2.1 The section modulus 'Z' of side longitudinal is not to be less than

$$Z = \frac{spl^2}{12} + Z_c [cm^3]$$

Where

p = applicable design pressure at midpoint of the span [kN/m^2].

σ = (215 -145 f_s) / k. maximum 160/k [N/mm^2] for side longitudinal at deck/bottom level within 0.4L amidships.

= 160 / k [N / mm^2] at neutral axis within 0.4 L amidship.

= 160 / k [N / mm^2] within 0.1 L from ends and at the level of short superstructure decks.

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Between the regions specified above 's' may be obtained by linear interpolation.

4.3 Main frames

4.3.1 The section modulus 'Z" of the main frames bracketed at both ends as per 4.3.2 is not to be less than :

$$Z = \frac{spl^2}{2400} + Z_c[cm^3]and$$

$$= 5.5\sqrt{(L.K.)}[cm^3]$$

where,

p = applicable design pressure at midpoint of the span or mean of the pressures at two ends, whichever is greater, [kN / m^2].

4.3.2. Main frame brackets are to be as follows :

Length of the bracket :

- for upper bracket : 70 l [mm]

- for tower bracket : 120 l [mm]

Section modulus at end (including bracket):

- for upper bracket : 1.7 Z [cm^3]

- for tower bracket : 2.0 Z [cm^3]

Where,

Z = section modulus of main frame as given in 4.3.1.

Where the free edge of the bracket exceeds 40 times the bracket thickness, the brackets are to be flanged. The flange width is to be at least 1/15 of the length of the free edge.

4.3.3 Brackets at ends of the main frame may be omitted provided the frame is carried through the supporting members and the section modulus obtained as per 4.3.1 is increased by 75 per cent.

4.4 Superstructure frames

4.4.1 Superstructure frames located between the collision bulkhead and the after peak bulkhead are to have section modulus 'Z' not less than:

$$Z = 0.005\ s\ l^2\ k \quad [cm^3]$$

4.4.2 The lower end of the superstructure frame is to be connected to the bracket or frame below or else it is to be bracketed above the deck. The upper end is to be bracketed to the deck beam or longitudinal.

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4.5 Peak frames

4.5.1 Vertical peak frames forward of the collision bulkhead and aft of the after peak bulkhead are to have section modulus 'Z' not less than

$$Z = \frac{spl^2}{1600} + Z_c[cm^3] and$$

$$= 5.5\sqrt{(L.K.)}[cm^3]$$

Where
p = applicable design pressure [kN/m^2] as given in Sec.3.

4.5.2 Peak frames are to be bracketed at top and. bottom and in way of side stringers, the connection is to provide adequate shear strength.

Section 5

Girders

5.1 General

5.1.1 Web frames are to be fitted in way of hatch end beams and deck transverses.

5.1.2In the engine room, web frames are to be tilted at the forward and aft end of the engine and every 5th frame in general, The section modulus Z' of the web frame and side stringers is to be obtained as per 5.1.5 taking 'b' as the mean of the web frame or stringer spacing respectively, on either side. The depth of the webs and stringers are not to be less than 2.5 times the depth of the ordinary frames.

Adequate deep beams are to be provided in line with the web frames.

5.1.3 In peak spaces, side stringers supporting vertical peak names are normally to be fitted at every 2.6 [m]. The section modulus 'Z' of the stringers is to be obtained as per Sec. 5.1.5. The stringers are to be supported by web frames.

5.1.4 The scanning of simple girders and web frames supporting frames and longitudinals are to be in accordance with 5.1.5. The scantlings of webs supporting fully effective side stringers are to based on point loadings and 's' values given in 5.1.5. The scantlings of the complex-girder system are to be based on a direct stress analysis. The buckling strength of the cross lies, where fitted, is to comply with the requirement given in Ch 3. Sec 6.

5.1.5 The section modulus 'Z' of simple girders and web frames is not to be less than :

$$Z = \frac{bps^2.10^3}{m\sigma} + Z_c[cm^3]$$

where.

p = applicable design pressure [kN/m^2], as given in Sec 3.

m = 12 for continuous longitudinal girders with end attachments in accordance with Ch.3. Sec.5,

= 10 for other girders with end attachments in accordance with Ch.3, Sec.5.

σ = (190 - 45 f_s)/k, max 160/k [N/mm^2], for continuous longitudinal girders within 0.4L amidvessels.

= 160/k [N/mm^2] for longitudinal gilders within 0.1L from ends and for web frames in general.

Between the regions specified above, s may be obtained by linear interpolation.

5.1.6 The net cross sectional area 'A' of the girder web at ends is not to be less than

A = 0.06 Sbpk + 0.01 h t_c [cm^2] for stringers and upper ends of the web frames.

= 0.08 Sbpk + 0.01 ht_c [cm^3] for tower ends of the web frames.

where,

H = girder height [mm].

5.1.7. Tripping brackets are to be fitted in accordance with the requirements given in Ch. 3, Sec. 4.4.4.

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Chapter 8

Deck Structure

Contents

Section	
1	General
2	Structural Arrangement and Details
3	Design Loads
4	Deck Plating and Stiffeners
5	Deck Girders and Pillars
6	Decks for Wheel Loading

Section 1

General

1.1 Scope

1.1.1 The scantlings and arrangement of deck structure as defined in Ch. 1. Sec. 2 are to comply with the requirements given in this Chapter.

1.2 Symbols

L.B.T., C_b, k as defined in Ch. 1. Sec. 2.

s = spacing of stiffeners, [mm]

l = span of stiffeners, [m]

b = spacing of girders, [m]

s = span of girders, [m]

t_c, Z_c = corrosion additions to thickness and section modulus respectively as given in Ch. 3, Sec. 2.1.

$$f_D = \frac{Z_R}{Z_D}$$

Where,

Z_R = Rule midvessel section modulus [cm^3], as required by Ch. 4.

Z_D = actual midvessel section modulus [cm^3], provided at deck calculated as per Ch. 4.

Section 2

Structural Arrangement and Details

2.1. General

2.1.1. In tankers, the deck is normally to be stiffened longitudinally in the cargo tank region, however, where L does not exceed 75 [m], consideration may be given to transversely stiffened decks.

2.1.2 The continuity of the deck longitudinal is to be maintained in accordance with Ch. 3, Sec. 5.1.1.

2.1.3. The deck within the line of hatchway openings is preferably to be stiffened

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transversely or alternatively the arrangements are to provide adequate transverse buckling strength. Where the deck outside the line of hatchway opening is framed longitudinally, the transverse beams or buckling stiffeners between the hatchways are to extend at least upto the second longitudinal from the hatch side to equivalent.

2.1.4. In vessels with large hatch opening's the effective cross-sectional area of the deck between the hatchways is to be sufficient to withstand the transverse toad acting on the vessel's sides.

2.1.5. The weld connections are to comply with the requirements of Ch. 14.

2.1.6. Hatchway corners are to be of streamlined, elliptical or circular shape as given in Ch. 4. Where shapes other than the streamlined shape or equivalent are adopted, insert pleats are to be fitted at the hatch corners in strength deck. The insert plates are to be 25 percent thicker than the deck plating outside the line of hatchways and are to extend as shown in Fig. 2.1.6. The butts of insert plates are to be well clear of those in coaming.

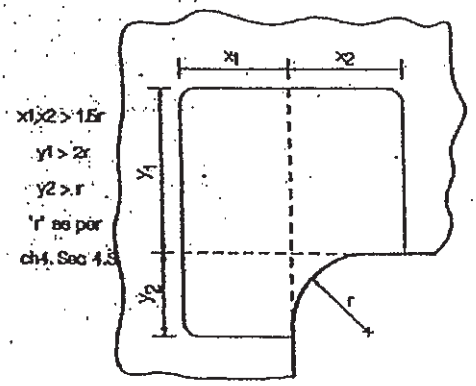


Fig.2.1.6 : Extent of insert plate

Section 3

Designs Loads

3.1 Weather deck

3.1.1 The design pressure 'p' on exposed decks is to be taken as:

$p = H, - 10\ h_o\ [kN/m^2]$ minimum 5 $[kN/m^2]$

where,

h_o = vertical distance [m], from the maximum toad waterline to the deck.

H_1 = as given in Table 3.1.1.

Table 3.1.1.	
Zone	H_1
1	9 for L ≤ 20 [m] 9 + 0.15 (L-20) 20 < L < 60 15 for L ≥ 60 [m]
2	9
3	5

3.1.2. for decks subjected to charge loading the design pressure is to be taken as :

$P = 12.5\ q\ [kN/m^2]$

Where 'q' is deck cargo loading $[t/m^2]$

3.1.3. For weather decks forming crowns of tanks, the design pressure 'p' is to be taken as the greater of that given by 3.1.1. and 3.3.2.

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3.2 Accommodation decks

3.2.1 The design pressure 'p' on accommodation decks is to be taken as :

$p = 4.5$ [kN/m^2]

3.2.2 For decks forming crowns of tanks the design pressure 'p' is to be taken as the greater of that given by 3.2.1 and 3.3.2.

3.3 Decks forming tank boundaries

3.3.1 The design pressure 'p' for decks forming the bottom of a tank may be taken as the greater of the following:

$p = 6.7\ h_p$ [kN/m^2] or

$= 10\ (h_s + 1)$ [kN/m^2]

Where,

h_P = vertical distance [m], from the deck to the top of air pipe.

h_S = vertical distance [m], from the deck to the top of the tank.

3.3.2. The design pressure 'p' for decks forming the crown of a tank may be taken as :

$P = 6.7\ h_P$ [kN/m^2]

Where, h_P is as given in 3.3.1.

Section 4
Deck Platings and Stiffeners

4.1. Deck platings

4.1.1. The thickness of the strength deck plating outside the line of hatchway openings is to be adequate to give the necessary hull section modulus and moment of inertia required by Ch.4.

4.1.2. The thickness 't' deck platings is not to be less than:

$t = (t_O + 0.02L)\ \sqrt{k} + t_c$ [mm]

where,

$t_O = 5$ for strength decks and forecastle decks

$= 4.0$ for other decks.

4.1.3 The strength deck plating outside the line of hatchways is also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

4.1.4 In way of ends of bridges, poops and forecastles. The thickness of the strength deck stringer strake is to be increased by 20 per cent over four frame spaces fore and also aft of the end bulkheads.

4.2 Deck stiffeners

4.2.1 The section modulus 'Z' of deck longitudinals is not to be less than:

$$Z = \frac{spl^2}{12\sigma} + Z_c[cm^3]$$

Where

p = applicable design pressure [kN/m^2] as given in Sec.3.

$\sigma = (215 - 145f_D.F_z)/k$, max. 160/k [N/mm^2] for strength deck and deck's of long super-structures/deckhouses within 0.4L amidvessels.

$= (225 - 145f_D.f_2)/k$, max. 160/k [N/mm^2] for continuous decks below strength deck within 0.4L amidvessels.

= 160/k [N/mm^2] within 0.1L from ends and for short decks.

Elsewhere, σ may be obtained by linear interpolation.

The longitudinal are also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

4.2.2 The section modulus 'Z' of transverse, beams is not to be less than:

$$Z = \frac{spl^2}{1600} + Z[cm^3]$$

Where,

p = applicable design pressure [kN/m^2] as given in sec. 3.

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Section 5

Deck Girders and pillars

5.1 Girders

5.1.1 Deck girders and transverses are to be arranged in line with vertical members of scantlings sufficient to provide adequate support.

5.1.2 The scantlings of simple girders and transverses are to be in accordance with 5.1.3, The scantlings of a complex girder system are to be based on a direct stress analysis.

5.1.3 The section modulus 'Z' of deck girders is not to be less than:

$$Z = \frac{bpS^2.10^3}{m\sigma} + Z_c[cm^3]$$

where,

p = applicable design pressure [kN/m^2] as given in Sec.3.

m = 12 for continuous longitudinal girders with end attachments in accordance with Ch.3.

= 10 for other girders with end attachments in accordance with Ch.3.

σ = (190 – 145f_D,f_Z)/k max, 1607k [N/mm^2] (or continuous longitudinal girders within 0.4L amidvessels.

= 160/k [N/mm^2] for longitudinal girders within 0.1L from ends and for transverse gilders in general.

Elsewhere, 'σ' may be obtained by linear interpolation.

5.1.4 The net cross sectional area 'A' of the girder web at ends
is not to be less than:

$$A = 0.07\ S\ b\ p\ k\ + 001ht\ [cm^2]$$

where

h = girden height [mm]

5.1.5 The girders are to be satisfactorily stiffened against buckling in accordance with the requirements given in Ch.3, Sec.6. Tripping brackets are to be fitted in accordance with the requirements given In Ch.3, Sec. 4.4.4.

5.2 Cantilevers

5.2.1 The scantlings of cantilever beams and supporting frames will be specially considered.

5.3 Pillars

5.3.1 The scantlings of the pillars are to be in accordance with the requirements of Ch.3, Sec.6. Axial toad, if any, from pillars above is to be added to the toad from deck girders.

The minimum wall thickness 't' [mm], of the tubular pillars is not to be less than:

t = 4.5 + 0.015 d for d < 300 [mm]

= 0.03d for d > 300 [mm]

where,

d = diameter of the pillar [mm].

5.3.2 Pillars are to be filled in the same vertical line wherever possible, and arrangements are to be made to effectively distribute the load at the heads and heels. Where pillars support eccentric toads, they are to be strengthened for the additional bending moments imposed upon them. Doubling or insert plates are generally to be fitted al the head and heel of hollow pillars.

5.3.3 The pillars are to have a bearing fit and are to be attached to the head and heel plates by continuous welding.

5.3.4 Where the heels of hold pillars are not directly above the intersection of plate floors and girders, partial floors and intercostals girders are to be fitted as necessary to support the pillars. Lightening holes or manholes are not to be cut in the floors and girders below the heels of pillars.

5.3.5. Inside tanks, hollow pillars are not to be used and strengthening al the heads and heels of pillars is not to be obtained by means of doubling plates. Where hydrostatic pressure may give rise to tensile stresses in the pillars, their sectional area "A is not to be less than

$$A = 0.07.\ A_L.p\ [cm^2]$$

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Where,

P = design pressure as given in Sec. 3, causing the tensile stress in pillar.

A_t = toad area of deck [m^2], being supported by the pillar.

Section 6
Decks for Wheel Loading

6.1. General

6.1.1 Where it is proposed either to stow wheeled vehicles on the deck or to use wheeled vehicles for cargo handling, the requirements of this section are to be complied with in addition to those given in the preceding sections.

6.1.2 The requirements given below are based on the assumption that the considered element (Deck plating and/or stiffener) is subjected to one toad area only, and that the element is continuous over several evenly spaced supports. The requirements for other loads and/or boundary conditions will be specially considered.

A "load area" is the type print area of individual wheels; for closely spaced wheels it may be taken as the enveloped area of the wheel group.

6.1.3 The details of wheel loadings are to be forwarded by the vessel builder. These depth are to include the proposed arrangement and dimensions of tyre prints, axle and wheel spacing. maximum axle toad and tyre pressure.

6.2. Wheel toads

6.2.1. The pressure 'p' from the wheels on deck is to be taken as :

$$P = \frac{12.5W}{n.a.b.} x10^6 [kN/m^2]$$

- for stowed vehicles in sailing conditions; and

$$p = \frac{W}{n.a.b.}\left(9.81 + \frac{3}{\sqrt{W}}\right)10^6 [kN/m^2]$$

- for cargo handling vehicles in harbour condition

Where,

W = maximum axle load, [t], For fork lift trucks, the total weight is to be taken as the axle load.

N = number of "load areas" per axle.

a = extent [mm], of the load area perpendicular to the stiffener (see fig. 6.2.1.)

b = extent [mm], of the load area perpendicular to the stiffener (see fig. 6.2.1.)

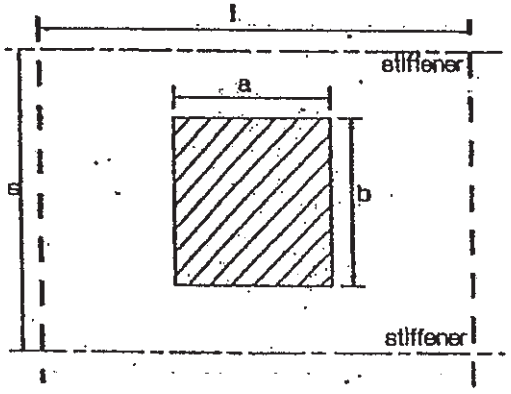


Fig. 6.2.1. Plate panel and load area dimensions

6.3. Deck plating

6.3.1. The thickness 't' of deck plating subjected to wheel loadings is not to be less than :

$$t = C_1 f_a \sqrt{\frac{c_2 bspk.10^{-3}}{m}} + t_c [mm]$$

Where,

f_a = (1.1.0.25 s/l) for s ≤ l, however need not be taken as greater than 1.0.

a,b,s,l = deck panel dimensions [mm] (see fig. 6.2.1.)

c_1 = 0.137 in general for sailing conditions.

= 0.127 in general for harbour conditions.

= As per table 6.3.1. for upper deck within 0.4 L amidvessels.

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Table 6.3.1. : C_1 values for upper deck plating within 0.4 L amidvessels		
Framing system	Sailing Conditions	Harbour conditions
Tongitudinal	0.145	0.130
Transverse	0.180	0.145

For upper deck plating between 0.4L amidvessels and 0.1 L from ends, c_1 is to be varied linearly.

$$c_2 = 1.3 - \frac{4.2}{(a/s + 1.8^2)}$$

However, need not be taken as greater than 1.0

$$m = \frac{38}{(b/s)^2 - 4.7(b/s) + 6.5} \text{ for } b \leq s$$

6.4. Deck stiffeners

6.4.1. The section modulus 'Z' of deck beams and tongitudinals subjected to wheel loadings is not to be less than :

$$Z = \frac{c_3 a.b.l.p10^{-6}}{m\sigma} + Z_c[cm^3]$$

Where

C_3 = (1.15 – 0.25 b/s) for b ≤ s, however need not be taken as greater than 1.0.

$$m = \frac{r}{(a/l)^2 - 4.7a/l + 6.5}$$

r = 29 for continuous stiffeners supported at girders

= 38 when the continuous stiffeners can be considered as rigidly supported at girders against rotation.

σ = 160/k [N/mm^2] in general, for sailing conditions

= 180/k [N/mm^2] in general, for harbour conditions

= As per Table 6,4.1 for deck longitudinals within 0.4L amidvessels, but not exceeding the above general values.

For deck longitudinals between 0.4L amidvessels and 0.1L from ends, σ is to be varied linearly.

Table 6.4.1 – σ Values for longitudinals within 0.4L amidvessels	
Condition	[N/mm^2]
Sailing	(215 – 145 $f_D.f_Z$) / k
Harbour	(225 – 60 $f_D.f_Z$) / k

6.5 Deck girders

6.5.1. The scantlings of girders will be specially considered based on the most severe condition of moving or stowed vehicles. Also see sec. 6.1.3.

End Of Chapter

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Chapter 9

Bulkheads

Contents

Section	
1	General
2	Subdivision and Arrangement
3	Structure Arrangement and Details
4	Design Loads
5	Plating and Stiffeners
6	Girders

Section 1

General

1.1 Scope

1.1.1 The requirements of this chapter cover the arrangement and scanning of watertight and deep tank bulkheads.

1.1.2 The requirements also cover the non-watertight bulkheads and shaft tunnels.

1.2 Statutory requirements

1.2.1 Where applicable, the number and disposition of bulkheads are to be arranged to meet the requirements for subdivision, ftood ability and damage stability in accordance with the requirements of the local or National Statutory Authority of the country in which the vessel is registered.

1.3 Symbols

L, B, T. C_b, k as defined in Ch.1, Sec.2.

s = spacing of stiffeners [mm]

l = span of stiffeners [m]

b = spacing of girders [m]

S = span of girders [m]

t_c, Z_c = corrosion additions to thickness and section modulus respectively as given in Ch.3, Sec. 2.1

$$f_D = \frac{Z_R}{Z_D}$$

$$f_D = \frac{Z_R}{Z_D}$$

where,

Z_R = Rule midvessel section modulus [cm^3] as required by Ch.4.

Z_D, Z = Actual midvessel section moduli in [cm^3] provided at deck and bottom respectively calculated as per Ch.4.

$f_s = f_D$ for side shell area above neutral axis

$f_s = f_B$ for side shell area below neutral axis

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Section 2

Subdivision and Arrangement

2.1 Number of bulkheads

2.1.1 The foltowing transverse watertight bulk heads are to be fitted in all vessels:

- A collision bulkhead;
- An aftpeak bulkhead;
- A bulkhead at each end of the machinery space.

In vessels with machinery aft, the aftpeak bulkhead may form the all boundary of the machinery space.

Additional transverse watertight bulkheads are to be fitted to ensure adequate transverse strength.

2.1.2 The ordinary transverse watertight bulk heads in the holds should be spaced at reasonably uniform intervals, Where non-uniform spacing is unavoidable and the length of a hold is unusually large, the transverse strength' of the vessel is to be maintained by providing additional web frames, increased framing etc.

2.3 Position and height of bulkheads

2.2.1 he collision bulkhead is to be fitted at a distance of 0.04L to 0.1L from the F.P. Any recesses or steps in collision bulkheads are to fall within the limits.

2.2.2 Consideration will however be given to proposals For the collision bulkhead positioned aft of the limits given in 2.2.1, provided that the application is accompanied by calculations showing that with the vessel fully loaded to maximum draught on even keel, flooding of space forward of the collision bulkhead will not result in any part of the main deck becoming submerged, nor result in any unacceptable toss of stability.

2.2.3. All vessels are to have an after peak bulkhead generally enctosing the sterntube and rudder trunk in a watertight compartment. In twin screw vessels where the bossing ends forward or the after peak bulkhead, the sterntubes are to be enctosed in suitable watertight spaces.

2.2.4 The watertight bulkheads are in general to extend to the uppermost continuous deck.

2.2.5 For passenger vessels the number and position of the bulkheads will normally be governed by the requirements of trim and stability in damaged condition given in Pt.5: Ch. 4.

2.3 Openings in watertight bulkheads and closing appliances

2.3.1 Doors, manholes, permanent access openings or ventilation duels are not to be cut in the collision bulkhead below the uppermost continuous deck.

2.3.2 Openings may be accepted in other watertight bulkheads provided the number and the size of openings is kept to a minimum compatible with the design and proper working of the vessel. Where penetrations of watertight bulkheads are, necessary for access, piping, ventilation, electrical cables, etc., arrangements "are to be made to maintain the watertight integrity. "In way of openings, suitable reinforcements are tobe provided to ensure that the strength is at least equal to that of the unpleased bulkhead,

2.4 Cofferdams

2.4.1 Cofferdams are to be provided between the following spaces to separate them from each other

- tanks for fuel oil or lubricating oil
- tanks for edible oil
- tanks for fresh water and feed water.

2.4.2 Tanks for lubricating oil are also to be separated by cofferdams from those carrying fuel oil. However, these cofferdams need not be fitted provided that the common boundaries have full penetration welds and line head of oil is generally not in excess of that in the adjacent lubricating oil tanks.

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Section 3

Structural Arrangement and Details

3.1 General

3.1.1 Oil fuel or oil carried as cargo in the deep tanks is to have a flash point or 60°C and above in closed cup test. Where tanks are intended for other liquid cargoes of a special nature the scantlings and arrangements will be considered in relation to the nature of the cargo.

3.1.2 The continuity of bulkhead longitudinals within a distance of 0.15D from the bottom or the strength deck is to be maintained in accordance with Ch.3, Sec.5.1,1.

3.1.3 Carlings, girders or ftoors are to be fitted betow the corrugated bulkheads at their supports. These supporting members are to be aligned to the face plate strips of the corrugations.

3.1 The weld connections are to comply with the requirements of Ch.16.

3.3 Wash bulkheads

3.2.1 A centreline wash bulkhead is to be fitted in peak spaces used as tanks. where the breadth of the lank exceeds 0.5B and also in deep lanks used for fuel oil extending from side to side.

3.2.2 The area of perforations is generally to be between 5% to 10% of the total area of bulkhead. The plating is to be suitably stiffened in way of the openings.

3.3 Supporting bulkheads

3.3.1 Bulkheads or parts there supporting deck structure are also to be designed as pillars. The permissible axial loads and buckling strength are to be calculated in accordance with Ch,3, Sec.6. In calculating sectional properties the width of attached plating is not to be taken in excess of 40 times the plate thickness. Also see Ch.8. Sec.5.1.1.

Section 4

Design Toads

4.1 Watertight bulkhead toads

4.1.1 The design pressure 'p', for ordinary watertight bulkheads is given by:

$$p = 10\ h\ [kN/m^2]$$

where,

h = the vertical distance [m] from the toadpoint to the uppermost continuous deck.

4.1.2 For bulkheads bounding cargo spaces intended to carry dry bulk cargoes, the design pressure 'p' is to be taken as the higher of that given in 4.1.1 and the pressure due to bulk cargo as given betow:

$p = 12.5\ C\ {}_{p}h_c \quad [kN/m^2]$

where,

α = angle made by the panel under consideration with the horizontal plane [deg.]

δ = angle of repose of cargo [deg.] not to be taken greater high the foltowing

- 20° for high bulk cargo (e.g. coal, grain)

- 25° for bulk cement cargo

- 35° for heavy bulk cargo (e.g. ore)

h_c = vertical distance [m], from the loadpoint to the mean horizontal plane corresponding to actual volume or cargo being considered

p = density of cargo [t/m^3].

For vessels designed to carry heavy bulk cargoes which are also required to carry lighter cargoes, the pressure "p" based on maximum mass of cargo to be carried in the hold and filled up to the top of hatch coaming would also require to be considered.

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4.2 Tank bulkhead loads

4.2.1 The design pressure 'p' for tank bulkheads are normally to be taken as the greater of

$P = 12.5\ h_s\ [kN/m^2]$

$= 6.7 h_p\ [kN/m^2]$

$= 10\ (h_s + 1)\ [kN/m^2]$

where.

h_p = vertical distance [m] from the loadpoint to the top of the air pipe.

h_s = vertical distance (m) from the toadpoinl to (he top of the tank or hatchway.

For very large tanks which may be partially tilled, stoshing pressures may have to be considered.

4.2.2 The pressure 'p' on girder web panels in cargo tanks or ballast tanks is not to be taken as less than 20 $[kN/m^3]$.

4.3 Wash bulkheads toads

4.3.1 The design pressure 'p^1 for wash bulkheads may be taken as 50% of that for boundary bulkhead in the same tocation.

Section 5

Plating and stiffeners

5.1 Bulkhead plating

5.1.1 The thickness 't' of the bulkhead plating is not to be less than the minimum thickness given in 5.1.2 nor less than

$$t = 15.8s \sqrt{p / \sigma} \times 10^{-3} + t_c\ [mm]$$

Where,

P = applicable design pressure as given in sec. 4.

σ = as per table 5.1.1 for tongitudinal bulkheads.

= 160/k for transverse tank bulkheads and collision bulkhead;

= 220/k for ordinary transverse watertight bulkheads.

= 190/k for transverse dry bulk cargo bulkheads

5.1.2 The minimum thickness requirement of the bulkhead plating is given by

$t = (4.0 + 0.01L) + t_c\ [mm]$

5.1.3 The plate thickness of corrugated bulkheads is not to be less than that required according to 5.1.1 and 5.1.2. The spacing 's' to be used in the calculation of the plating thickness is to be taken as the greater of 'b' or 'c' where 'b' and 'c' are indicated in Fig. 5.1.3.

For built up corrugation bulkheads, where the thickness of the flange and web are different, the thickness of the wider plating is also not to be less than :

Table 5.1.1 : 'σ' values for tongitudinal bulk head plating

Region	Framing system	At neutral axis	At strength deck or at bottom	Between neutral axis and strength deck or bottom.
0.4 L amidvessels	Vertical	140/ k	(175 – 130 f_s) /k max 120 / k	To be obtained by linear interpolation.
	Longitudinal	160 / k	(185 – 105 f_s) / k max 120 / k	To be obtained by linear interpolation.
Within 0.1L from ends	160 / k	160 / k	160 / k	
Elsewhere	To be obtained by linear interpolation between allowable values at regions specified above.			

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$$r = \sqrt{\frac{S^2 P}{2\sigma} - (t_a - t_c)^2 + t_c [mm]}$$

where,

t_a = thickness of adjacent plating [mm] not to be taken greater than t.

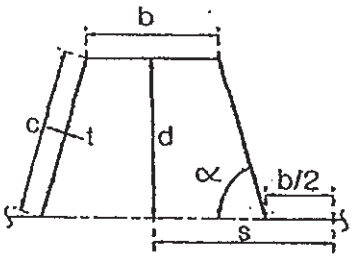


Fig.5.1.3 : Corrugated bulkhead

5.1.4 The longitudinal bulkhead plating with 0.1D from bottom or strength deck is also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

5.1.5 In way of stern tubes, doubling plate of same thickness as the corresponding strake is to be fitted, or the strake thickness is to be increased by at least 60 percent.

5.2 Longitudinals

5.2.1 The section modulus of continuous longitudinal stiffeners and corrugations is not to be less than:

$$z = \frac{spl^2}{m\sigma} + Z_c [cm^3]$$

where,

p = applicable design pressure given in Sec.4.

m= 12

σ = (215 - 145 f_s)/k. max. 160/k [N/mm^2] at deck/bottom level within 0.4L amidvessels.

= 160/k at neutral axis within 0.4L amidvessels

= 160/k for longitudinals within 0.1 L from ends.

For longitudinals between the regions specified above a may obtained by linear interpolation.

5.2.2 The thickness of the web and flange is not to be less than the minimum plating thickness requirements stipulated in 5.1.2.

5.2.3 The rule section modulus of a corrugated bulkhead element is to be obtained according to 5.2.1 taking's as shown in Fig. 5.1.3.

5.2.4 The actual section modulus of a corrugated bulkhead element may be obtained in accordance with the foltowing:

$$Z_{actual} = \frac{t.d(b + c/3)}{2000} [cm^3]$$

where, t.d.b and c [mm], are as shown in Fig. 5.1.3.

5.3 Vertical and transverse stiffeners on tank bulkheads, collision bulkheads, dry bulk cargo bulkheads and wash bulkheads.

5.3.1 The section modulus of bulkhead stiffeners is not to be less than:

$$z = \frac{spl^2}{m\sigma} + Z_c [cm^3]$$

where,

p = applicable design pressure [kN/m2] given in Sec.4,

m = 10 for transverse stiffeners and vertical stiffeners which may be considered fixed at both ends

= 7.5 for vertical stiffeners simply supported at one or both ends

= 10 for horizontal corrugation fixed al ends

= 13 for fixed upper end of vertical corrugation

= 20 for non-fixed upper end of vertical corrugation

= 10 for lower end of vertical corrugation

σ = 160/k for tank bulkhead and collision bulkhead

= 210/k for dry bulk cargo bulkheads.

5.3.2 The thickness of web and flange is to be as required in 5.1.2.

5.3.3. Actual section modulus of corrugations is to be obtained as per 5.2.4.

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5.3.4 Brackets are normally to be fitted at the ends of non-continuous stiffeners. Where stiffeners are sniped at the ends. The thickens of the plating supported by the stiffener is not to be less than:

$t = 1.25 \cdot \sqrt{(l-0.0005s)}\ s.p.k) + t_c$ [mm]

5.4 Vertical and transverse stiffeners on ordinary watertight bulkheads

5.4.1 The section modulus of bulkhead stiffeners is not be less than

$$Z = \frac{spl^2}{m\sigma}$$

Where

p = applicable design pressure given in Sec.4.

m = 16 for stiffeners fixed at both ends

= 12 for stiffeners fixed at one end (lower end in case of vertical stiffeners) and simply supported at the other end.

= 8 for stiffeners simply supported at both ends.

σ = 220/k

5.4.2 The thickness of web and flange is to be as required in 5.1.2. For sniped ends, the thickness of bulkhead plating is to be as per 5.3.4.

Actual section modulus of corrugations is to be obtained as per 5.2.4.

Section 6

Girders

6.1 General

6.1.1 Bulkhead stringers and deep transverses are to be arranged in line with other primary supporting structure to the adjoining deck, side shell and bottom so as to facilitate the formation of continuous ring structures. Otherwise equivalent scarphing arrangement is to be provided.

6.1.2 The section modulus requirement 'Z' of simple gilders is not to be less than:

$$Z = \frac{b.p.S^2 x10^3}{m\sigma} + Z_c[cm^3]$$

where,
m = 12 for continuous longitudinal girders with end attachments. in accordance with Ch.3, Sec. 5.

= 10 for other girders with end attachments in accordance with Ch,3, Sec.5.

σ = (190 – 45f_s) max 160/k [N/mm^2], for continuous longitudinal girders within 0.4 L amidvessels

= 160/k [N/mm^2] for continuous longitudinal girders with 0.1 L from ends and for vertical or transverse girders on tank and collision bulkheads. -

= 210/k for vertical and transverse girders, in general.

For continuous longitudinal girders between the regions specified above, 'σ' may be obtained by linear interpolation.

6.1.3 The depth of the girders should not be less than 2.5 times the depth of the cutout (if any) for the passage of continuous stiffeners. The net cross sectional area 'A' of the girder web at ends is not to be less than

$A = CkSbp + 0.01\ d_w t_c$ [cm^2]

where,

C = 0.060 for tank and collision bulkheads

C = 0.045 for other watertight bulkheads

d_w = depth of web [mm],

However. for lower end of vertical girders value of C to be taken as 0.08 and 0.06 respectively.

6.1.4 Tripping brackets are to be fitted in accordance with the requirements given in Ch,3, Sec.4.

End of Chapter

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Chapter 10

Superstructure, Deckhouses and Bulwarks

Contents

Section
1 General
2 Scanting
3 Structural Arrangement
4 Bulwarks and Guard Rails

Section 1

General

1.1 Scope

1.1.1 The scantlings of the bulwarks and of the exposed bulkheads of the superstructures and deckhouses are to comply with the requirements of this chapter. The scantlings of the decks of the superstructures and deckhouses are to be in accordance with the requirements of Ch.8. and those of the sides of the superstructures are to be in accordance with the requirements of Ch.7.

1.2 Definitions

1.2.1 For definitions of the terms 'Superstructure' and 'Deckhouse' refer to Ch.1

1.2.2 The lowest tier is normally the tier that is directly situated on the deck to which the rule depth 'D' is measured or on superstructures which are less than 1.8 [m] in height.

1.3 Symbols

1.3.1 L and k as defined in Ch.1. Sec.2.

s = spacing of stiffened [mm],

l = span of stiffener [m].

Section 2

Scantling

2.1 End bulkheads and exposed sides of Deckhouses

2.1.1. The thickness 't' of steel plating of the fronts, sides and aft ends of deckhouses and the front and aft ends of superstructures is not to be less than :

$t = (COM\ s + 2.5)\ \sqrt{k}$ - for towest tier

$= (0.004\ s + 1.5)\ \sqrt{k}$ - for upper tiers

2.1.2 The section modulus Z of stiffeners on fronts, sides and aft ends of deck houses and the front and aft ends of superstructures is not to be less than:

$Z = 3.6\ sl^2 \times 10^{-3}.\ k\ [cm^3]$ - for uppermost tier

l is not to be taken less than 2.0 [m].

When a multiple tier erection is filled, the section modulus of stiffeners on lower tiers is to be increased at, the rate or 15% per tier fitted above the tier under consideration.

2.1.3 The upper end of stiffeners on all erections ate to be bracketed to the deck beams or longitudinal and the lower end is to be welded to the deck below.

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2.2 Protected machinery casings

2.2.1 The thickness of plating is not to be less than:

$t = (0.003\ S + 1.5)\ \sqrt{k}$ [mm]

2.2.2 The section modulus 'Z' of stiffeners is not to be less than:

$Z = 0.003\ sl^2\ \sqrt{k}$ [cm^3]

Where, l is not be taken less than 2.0 [m]

2.2.3. Casings supporting one or more decks above are to be adequately strengthened.

Section 3

Structural Arrangement and Details

3.1 Structural continuity

3.1.1 Adequate transverse strength is to be provided to the deckhouses and superstructures by means of transverse bulkheads, girders and web frames.

The front and the after end bulkheads of large superstructures and deckhouses are to be effectively supported below by a transverse bulkhead or by a combination or partial bulkheads, girders and pillars. Similarly, the exposed sides of various tiers of erections are to be supported by bulkheads, girders or carlings betow.

3.1.3 All openings cut on the sides are to be. substantially framed and have well rounded corners.

3.1.4 At the ends of superstructures, which have no set-in from the vessels' side. The side plating is to extend beyond the ends of the superstructure, and is to be gradually reduced in height down to the sheer strake. The extended plating is to be adequately stiffened, particularly at its upper edge.

Section 4

Bulwarks and Guard Rails

4.1 General requirements

4.1.1 Bulwarks or guard rails are to be provided on the exposed parts of the freeboard and superstructure decks and also on all upper deck spaces normally accessible to crew and passengers. The height of the bulwarks or guard rails measured above the sheathing, if any, should not be less than the Following:

For all passenger vessels :

- For all Zones : 900 [mm]

For all other vessel

- For Zone 1 : 900 [mm)
- For Zone 2 : 600 (mm)
- For Zone 3 -. 300 [mm)

Consideration will be given to cases where this height would interfere with the normal operation of the vessel.

4.1.2 Bulwarks or guard rails as required by

4.1.1 may be dispensed with in way of hatch side coamings fitted with suitable handrails.

4.1.3 Where bulwarks on the weather portion of freeboard or superstructure decks form wells, provision is to be made for rapidly freeing the decks of water.

4.2 Bulwark construction

4.2.1. Bulwarks are to be stiffened at the upper edge by a strong rail section and supported by stays from the deck, spaced not more than 2.0 [m] apart. Where bulwarks are cut in way of a gangway or other openings, stays of increased strength are to be filled at the ends of the openings.

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Bulwark slays are to be supported by, or are to be in line with, suitable underdeck stiffening, which is to be connected by double continuous fillet welds in way of the bulwark stay connection.

Bulwarks are to be adequately strengthened in way of the eye plates for cargo gear. In way of the mooring pipes, the plating is to be increased in thickness and also adequately stiffened.

4.2.2 Bulwarks are generally not to be welded to the top of the sheer strake within 0.6L amidvessels and so arranged as to ensure their freedom from main structural stresses.

4.3 Bulwark scantlings

4.3.1 The thickness of the bulwark plating is not to be less than 4.0 [mm].

4.3.2 The section modulus 'Z' at the bottom of the bulwark stay is not to be less than :

$Z = (33 + 0.44L)h^2s \quad [cm^3]$

where,

h = height of the bulwark [m].

s = spacing of bulwark slays [m].

In the calculation of section modulus 'Z' only the material connected to the deck is to be included. The contribution from bulwark plating and/or slay flange may be considered depending upon the construction details.

4.4 Guard rails

4.4.1 The guard rails are to be supported by stanchions fitted not more than 3.0 [m] apart;

At least every third stanchion is to be supported by a bracket or stay.

4.4.2 Lengths of chain may be accepted in lieu of guard rails if they are fitted between two fixed stanchions and/or bulwarks.

4.4.3. The dear opening betow the lowest course of the guard rails is not to exceed 230 [mm].

End of Chapter

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Chapter 11

Opening and Ctosing Appliances, Ventilators, Air Pipes and Discharges

Contents

Section	
1	General
2	Hatch Coamings
3	Hatch Covers
4	Miscellaneous Openings
5	Ventilators
6	Air and Sounding Pipes
7	Scuppers and sanitary Discharges

Section 1

General

1.1 Scope

1.1.1 This Chapter applies to all vessel types in general. Additional requirements pertaining to special vessel types are given in Pt.5.

1.1.2 The requirements of National or íkocal authorities should also be applied, where relevant.

1.1.3. For the purpose of this section weather tightness of hatch covers means that ctosing appliances do not permit entry of water into the vessel which may prejudice the safely of the vessel under the navigational conditions envisaged.

Section 2

Hatch Coamings

2.1 Coaming heights

2.1.1 The height of cargo hatch coamings above deck is to be not less than 300 [mm] for Zones 1 and 2 and 200 (mm) for Zone 3.

In addition, the distance of coaming top above toad water line is to be not less than given in Table 2.1.1.

2.2 Hatch coaming construction

2.2.1 Hatchside coamings are to extend-to the lower edge of the deck beams. Side coamings not forming a part of continuous girders, are to extend two frame spaces beyond the hatch ends below the deck.

Table 2.1.1 : Height of hatch coamings [mm]

	Zone 1	Zone 2	Zone 3
With weathertight hatch cover [1)]	1000	600	300
Without weather tight	1700	1000	500

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Hat cover			
Note 1) see 1.1.3.			

2.2.2 Hatch end coamings when not in line with the deck transverses are to extend below the deck, at least three longitudinal frame spaces beyond the side coaming.

2.2.3 Continuous hatchway coamings or coamings forming an effective part of the deck girder system are to be made from steel of same tensile strength as that of the deck plating.

2.2.4 If the junction of hatch coamings forms a sharp comer, the side and end coamings are to be extended in the form of tapered brackets in longitudinal and transverse directions respectively.

2.2.5 Extension brackets or rails arranged approximately in line with the cargo hatch side coamings and intended for the stowage of steel hatch covers are not to be welded to deckhouse, masthouse or to each other unless they form a part of the longitudinal strength members.

2.3 Coaming scantlings

2.3.1 The scantlings of hatch coaming plating and stiffened are to be not less than that required for the adjacent deck.

2.3.2 Hatchway coamings 300 [mm] and above are to be stiffened in their upper edge.

Coaming stays are to be fitted at spacing of not more than 3.0 [m]. The stays are to end on stiffened plating. The coamings are to be satisfactorily stiffened against buckling.

Section 3

Hatch Covers

3.1 General

3.1.1 Hatch covers, where fitted, may be of the types a) to e) as described betow.

Hatch Cover Types :

'a' : Steel plated cargo hatch covers stiffened by webs or stiffeners and secured by clamping devices. Weathertightness is to be ensured by means of gaskets. Hatch covers used for holds containing liquid cargoes are also included in this category.

'b' : Steel plated pontoon type cargo hatch covers with internal webs and stiffeners extending over the full width of the hatchway. Weather- lightness is to be achieved by tarpaulins.

'c' : Wood or steel hatch covers used in conjunction with the portable beams. Weather tightness to be obtained by tarpaulins.

'd' : Access hatch covers for cargo oil tanks and adjacent spaces. The hatch covers are to be of steel and gasketed.

'e' : Access hatch covers other than 'd'. The covers are to be of steel or wood and weathertight. Escape hatches are to be operable from both sides.

3.1.2 Materials for steel hatch covers are to satisfy the requirements of hull structural steel. Where other approved materials are used, equivalent strength and stiffness are to be provided.

3.2 Design loads

3.2.1 The design weather load on the weather deck hatchcovers is to be taken as:

$p = H_1 - 10\ h_0$ [kN/m^2], minimum 3 [kN/m^2)

where,

h_0 = Vertical distance [m] from the maximum load waterline to the top of hatch covers.

H_1 = as given in Table 3.2.1.

Table 3.2.1

Zone	H_1
1	9 for $L \leq 20$ [m] $9 + 0.15\ (L - 20)$ for $20 < 1 < 60$ 15 for $L \geq 60$ m
2	0
3	5

3.2.2. For hatch covers subjected to carge toading the design pressure is to be taken as :

$$p = 12.5\ q\ [kN / m^2]$$

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where,

q = specified cargo loading [t/m2] on the hatch cover.

3.2.3 The design internal pressure on hatch covers above tanks are to be determined as per the design pressure on deck structure given in Ch.8.

3.3 Hatchcover plating

3.3.1 The thickness of steel hatch cover plating is not to be less than:

$$t = 15.8S\sqrt{P/\sigma}x10^{-3} + t_c[mm], or$$

3 [mm] whichever is greater

where.

p = design pressure as per 3.2

= 160/k [N/mm^2]

Hatch covers of G.I. sheet and other material will be specially considered.

3.3.2 The plating of hatch covers acting as compression flanges for the hatch cover stiffeners and girders is to be effectively stiffened against buckling.

In the middle part of the simply supported span the critical buckling stress s_c is to be such that

$$\sigma_c \geq 1.15\sigma_b[N/mm^2]$$

where,

σ_b = calculated bending stress in the compression flange corresponding to the design toad as given in 3.2.

σ_c = the critical buckling strees as per Ch.3, Sec.6.

3.4 Stiffeners and girders

3.4.1 The section modulus of the stiffeners and girders is not to be less than the foltowing :

$$Z = \frac{6.25spl^2}{m}[cm^2]$$

Where,

l = the member span between effective supports [m].

S = the member spacing [m].

m = 8 for members simply supported at ends

= 12 for members which can be considered as fixed at both ends.

The moment of inertia of stiffeners and girders is not to be less than:

$$I = 2.1\ Zl\ [cm^4]$$

For other materials the requirement will be specially considered.

3.4.2 For covers above cargo and ballast tanks, fillet welds on lank side are to be double continuous.

3.5 Hatch cover edges

3.5.1. The cover edges are to be adequately stiffened to withstand the forces imposed upon them during opening and ctosing of the hatches.

3.6 Wooden hatch covers

3.6.1Wooden hatch cover plants are to have a finished thickness not less than 1/24th of the unsupported span, with a minimum of 20 [mm]. The planks of wood covers are to be connected at their underside by cross planks spaced not more than 1.5 [m].

3.6.2 The ends of all wooden hatch covers are to be protected by encircling with galvanized steel bands.

3.7 Portable hatch beams

3.7.1 The section modulus and the moment of inertia of the portable hatch beams stiffened at their upper and tower edges by continuous flat bars are to satisfy the requirements of 3.4.

3.7.2 Carriers or sockets, or other suitable arrangements are to be provided as means of the efficient fitting and securing of portable hatch beams.

3.7.3. Sliding hatch beams are to be provided with an efficient device for tocking them in their correct fore and aft positions when the hatchway is ctosed.

3.8.3 Direct calculations

3.8.1. Hatchcovers of special construction and arrangement e.g. covers designed and constructed as a grillage, coves supported atong more than two opposite edges and covers supporting other covers, may require submission of direct strength calculation taking

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into account the arrangement of stiffeners and the supporting members.

3.9 Hatch cover securing arrangement

3.9.1 The gaskets and the securing arrangements are to be designed for the expected relative movement between cover and coaming or special devices are to be fitted to restrict such movement.

3.9.2 Securing arrangements together with suitable gasketting material are to ensure weathertightness of the covers to the satisfaction of the surveyors.

3.9.3 The gasket material is to be of satisfactory air, seawater and if necessary oil resistant quality. It is to be effectively secured along the, edges of the cover in a manner as to ensure that the forces from the hatch covers or cargo stowed on top of the hatchcovers are transferred to the coaming or to the deck by direct contact without the load coaming on the gaskets. The sealing is to be achieved by relatively soft packing. The hatch coaming or steel parts oh the adjacent covers in contact with the packing are to be well rounded where necessary.

A metallic contact is to be kept between the hatchcover and the hull to effect electrical earthing.

3.9.4 Where tarpaulins are fitted to make hatch covers weathertight. They are to be free from jute, and are to be waterproof and of ample strength. At least two layers of tarpaulins are to be provided and these are to be secured by battens and wedges or equivalent arrangements.

Section 4

Miscellaneous Openings

4.1 Manholes

4.1.1 Manholes on the weather decks are to be closed by substantial covers capable of closing them watertight.

4.2 Companionways, doors and accesses on weather decks

4.2.1 Companionways on exposed deck are to be equivalent in strength and weathertightness to a deckhouse in the same portion. The height of the doorway sills above deck is not to be less than 100 [mm] for Zone 3 and 150 [mm] for Zone 1 & 2.

For doorways directly leading to engine room the sill height above deck is to be not less than 400 [mm].

In addition the sill heights above load waterline should not be less than the values mentioned below.

Zone 1	1000 [mm]
Zone 2	600 [mm]
Zone 3	300 [mm]

4.3 Openings on engine casing

4.3.1 Machinery space openings are to have efficient closing appliances. The openings and coamings for fiddley, funnel and machinery space ventilators in the casing in those positions are to be provided with strong covers of steel or other equivalent material permanently attached in their proper positions and capable of being secured weathertight.

4.3.2 Skylights are to be of substantial construction and secured firmly to the deck. For skylights the coaming height is not to be less than that required for the hatch coamings. Efficient means are to be provided for closing and securing the hinged scuttles, if any. The thickness of glasses in fixed or opening skylights is to be appropriate to their position and size as required for side scuttles. Glasses are to be protected against mechanical damage, and are to be fitted with deadlights or storm covers" permanently attached.

4.3.3 Side scuttles in the engine casings are to be provided with fireproof glass.

4.4 Windows and side scuttles

4.4.1 Side scuttles and windows are to be made and tested according to Standards. The glass thickness of side scuttles betow main deck is to be not less than 8.0 (mm].

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The glass thickness of windows above deck is not to be less than :

$$t = \frac{w}{70} \text{ [mm], minimum 6.0 [mm]}$$

where,
w = the height or the width of the window, whichever is smaller, [mm],

4.4.2. Side scuttles in the shell below main deck are to be non opening type with deadlights and the lower edge of glass is to be at least 500 [mm] above the load waterline in any condition of list or trim. Further, the scuttles are to be adequately protected against damage by direct contact.

4.4.3 Side scuttles and windows above deck may be fitted without deadlight/portable covers provided the height of tower edge of glass above waterline is not less than specified in Table 4.4.3.

Table 4.4.3. : Height of side scuttles [mm]

Zone	h_t [mm]
1	1700
2	1000
3	50

Section 5

Ventilators

5.1 General

5.1.1 The scantlings of exposed ventilator coamings are to be equivalent to the scannings of deckhouses in the same' position, in cargo spaces and other areas where mechanical damage is likely, the ventilator trunks are to be well protected.

5.2 Coaming heights

5.2.1 Ventilators on exposed decks are to have the tower edge of openings at a height of not less than 300 [mm]above deck,

In addition the heights of lower edge of openings above waterline are to be not less than specified in Table 5.2.1.

Table 5.2.1. : Ventilator coaming Heights [mm]

	With closing appliances	Without closing appliances
Zone 1	1000	1700
Zone 2	600	1000
Zone 3	300	500

5.3. Closing appliances

5.3.1. Ventilator openings are to be fitted with efficient weathertight closing appliances if applicable as specified in Table 5.2.1.

Section 6

Air and Sounding Pipes

6.1. General

6.1.1 Air and sounding pipes are to comply with the requirements of Pt.4, Ch.2.

6.1.2 Striking plates of suitable thickness, or their equivalent, are to be fitted under all sounding pipes.

6.1.3. Air and sounding pipes leading through cargo containment areas or other spaces where mechanical damage is likely to occur, are to be well protected.

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6.2 Height of air pipes

6.2.1 The height of air pipes from the upper surface of decks exposed to the weather, to the point from where water may have access below, is not normally to be less than 300 [mm].

The heights above load waterline of air pipes with and without closing appliances are not to be less than as specified in Table 5.2.1 for ventilators

6.2.2 Lower heights may be approved in cases where these are essential for the working of the Vessel provided closing appliances are of an approved automatic type.

6.3. Closing appliances

6.3.1. Permanently attached closing appliances to prevent free entry of water are to be fitted to all sounding pipes and for air pipes where required as per 6.2.1.

6.3.2. Where the closing appliances are not of an automatic type provision is to be made for relieving vacuum when the tanks are being pumped out.

Section 7

Scuppers and Sanitary Discharges

7.1 General

7.1.1 Scuppers sufficient in number and size to provide effective drainage are to be fitted in all decks.

7.1.2 Scuppers draining weather decks and spaces within superstructures or deckhouses not fitted with efficient weathertight doors are to be led overboard.

7.1.3 Scuppers and discharges which drain spaces below the main deck, or spaces within intact superstructures or deckhouses on the main deck fitted with efficient weather tight doors, may be led to the bilges in the case of scuppers, or to suitable sanitary tanks in the case of sanitary discharges. Alternatively they may be led overboard provided that the spaces drained are above the load waterline, and the pipes are fitted with efficient and accessible means of preventing water from passing inboard as required in 7.2.1.

7.1.4 Scuppers and discharge pipes should not normally pass through fuel oil or cargo oil tanks, Where scuppers and discharge pipes pass, un-avoidably, through fuel oil or cargo oil tanks, and are led through the shell within the tanks, the thickness of the piping should be at least the same thickness as Rule shell plating in way, derived from the appropriate chapters.

Piping within tanks is to be tested in accordance with Pt.4, Ch.2 and Ch.3.

7.1.5 All piping is to be adequately supported

7.2 Closing appliances

7.2.1 Where the inboard end of scuppers and discharges are below main deck, normally a screw down non-return value in an accessible location is to be fitted to prevent water from passing inboard.

Where the inboard end is above the main deck, a non-return valve is to be fitted at the shell, if the height of the inboard end above waterline is lower than the foltowing:

Zone 1 - 1000 [mm)

Zone 2 - 600 [mm]

Zone 3 - 300 [mm]

7.3 Materials for valves, fittings and pipes

7.3.1 All shell fillings and valves required by 7.2 are to be of steel, bronze or other approved ductile material; ordinary cast iron or similar material is not acceptable.

7.3.2. All these items, if made of steel or other approved malarial with low corrosion resistance are to be suitably projected against wastage.

7.3.3. The lengths of pipe attached to the shell fittings, elbow pieces or valves are to be of galvanized steel or other equivalent approved material.

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Section 12

Rudders

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1	General
2	Arrangement and Details
3	Design Loads
4	Rudder Blades
5	Rudder Stock and Pintles
6	Rudder Couplings

Section 1

General

1.1 Scope

1.1.1 The requirements of this Chapter apply to arrangement and scantlings of normal streamlined or plate rudders and their supporting structure. Rudders fitted with special features e.g. special profiles fins, flaps, steering propellers etc. to increase the lift force will be specially considered.

1.2 Material

1.2.1 All materials used in the construction of the rudder are to be tested and approved in accordance with Pt,2. 'Materials' of the Rules and Regulations for the Construction and Classification Steel Vessels (Main Rules).

Material grades for plates and sections for the rudder blade are to be selected as per Pt.3. Ch.2, Sec.1.3.

1.2.3 Bearing materials for bushings are to be stainless steel, "bronze, while metal, synthetic material or lignum vitae. If stainless steel is proposed to be used for liners or bushes for the rudder stocks and pintles, the chemical composition "is to be submitted for approval.

Hardness of the material of the bushing is to be at least 65 Brinell lower than that of the liner or the rudder stock or pintle.

Synthetic bush materials are to be of approved type. Arrangement is to be provided for adequate supply of sea-water to these bearings. 1.3 Testing

1.3.1 Bodies of the rudders are to be tested in accordance with the requirements given in Ch.15.

Section 2

Arrangement and Details

2.1 General

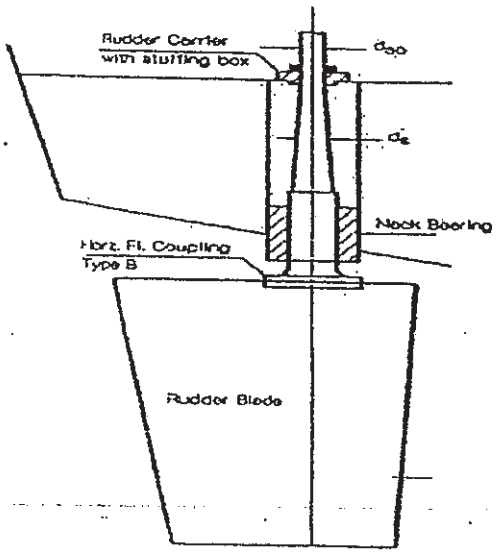
2.1.1 Various types of rudder arrangement are shown in Fig. 2.1.1; other combinations of Couplings and bearings may, however, be proposed.

2.1.2 Effective means are to be provided for supporting the weight of the rudder. Where the

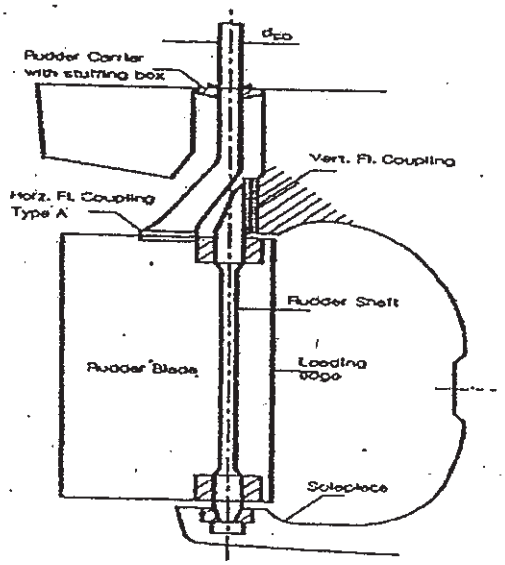
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Support is provided by a carrier bearing attached to the rudder head, the structure in way of the bearing is to be adequately strengthened. The

Plating under all rudder head bearing or rudder cariers is to be increased in thickness.



SPADE RUDDER



BALANCED RUDDER WITH SHAFT

Fig. 2.1.1. Types of rudders

2.1.3 All rudder bearings are to be accessible for measuring wear without lifting or unvesselping the rudder.

Satisfactory arrangement is to be provided to prevent water from entering the steering gear compartment and lubricant from being washed away from the rudder carrier. A seal or stuffing box is to be filled above the deepest load water line for this purpose unless the top of the rudder trunk (steering gear fiat) is more than 300 [mm] above the deepest waterline in way trimmed condition. When the rudder carrier is fitted betow the deepest toad water line, two separate seals or stuffing boxes are to be provided.

2.1.5 Suitable arrangement is to be provided to prevent the rudder from lifting and accidental unvesselping.

Section 3
Design Toans

3.1. Rudder Force

3.1. The rudder force, upon which rudder scanthings are to be based is to be determined from the foltowing formula :

$$F_1 = 132 \cdot K_1 \cdot K_2 \cdot K_3 \cdot A \cdot V^2 \text{ [N]}$$

Where,

F_r = rudder force [N]

A = area of rudder blade [m^2]

V = maximum achievable vessel speed (knots) in the lightest operating condition in which the rudder is fully immersed. V is not to be taken as less than 6 knots.

For astern condition, the maximum astern speed is to be used, but in no case less than:

$V_{astern} = 0.5\ V$

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$K_1 = (\lambda + 2) / 3$; with y not to be taken greater than 2.

$\lambda = b^2/A_t$; where b is the mean height of the rudder area [m] and A_t, (he sum or rudder blade area and area of rudder post or rudder horn, if any, within the height b [m^2]

Mean breadth C [m] and mean height b [m] of rudder are calculated according to the co-ordinate system in Fig. 3.1.1.

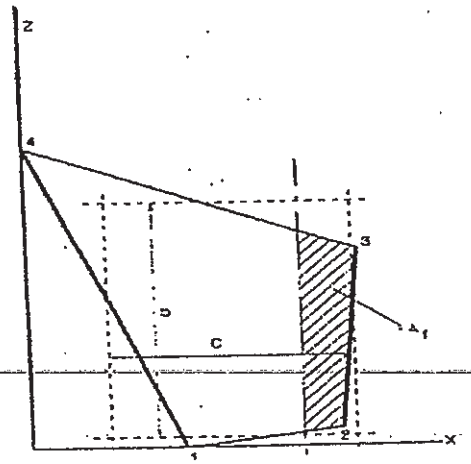


Fig.3.1.1 : Rudder dimensions

K_2 = Factor depending on the kind of rudder profile as per Table 3.1.1.

K_3 = 0.80 for rudders outside the propeller jet

= 1.15 for rudders behind a fixed propeller nozzle

= 1.0 otherwise.

Table 3.1.1.

Profile Type	K_2	
	Ahead	Astern
NACA : 00 Gottingen Profiles	1.1	0.80
Hollow Profiles	1.35	0.90
Flat side profiles	1.1	0.90

3.2. Rudder torque

3.2.1. The rudder torque on regular shaped ruddes in both the ahead and astern conditions to travel is to be calculated as follows :

$$Q_r = F_r \cdot r \text{ [N-m]};$$

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where,
$r = x_c f$ [m] but not to be taken less than 0.1C,

X_c = the distance of the point of application of the design force Fr from the leading edge

= 0.33 C in ahead condition

= 0.66 C in astern condition.

C = Mean breadth of rudder area [m] See Fig. 3.1.1.

$f = C. A_t/A$ where A_t is the portion of the rudder blade area situated ahead of the centre line of the rudder stock.

3.2.2 In case of rudder blades with stepped contours the total rudder torque is to. be obtained as foltows:

$$Q_r = \Sigma Q_n \text{ for } i = 1,2,3,....$$

where,

$Q_n = F_n\ r_n$ individual torque component from each part At of the total rudder area.

$F_n = F_n\ A/A$

$r_i = x_{ci}\ f_r$: but not to be taken less than 0.1 C_i

X_{ci}, f_i and C_i are to be taken as x_c, f and C as in 3.2.1 for each discrete part except that for those rudder parts immediately aft of rudder horn X_{ci} is to be taken as $0.25C_i$ and $0.55C_i$ in ahead and astern conditions respectively.

3.3 Bending moments, shear forces and reactions.

3.3.1. The bending moment (BM) and shear force (SF) distributions atong the entire height of the rudder blade and rudder stock as well as the bearing reactions (R) may be obtained by direct calculation. The rudder is to be assumed as simply supported at the centres of the upper bearing and the neck bearing. In case of rudders supported by the sole piece or rudder horn the flexibility of the sole piece or rudder horn, and rudder and rudder stock is to be taken into consideration.

3.3.2. For common types of rudders, the following approximate values may be used:

For balanced rudders with heel support :-

$$BM = \frac{F_r.b}{8}[N-m]$$

at mid – height of the rudder blade :

$$= \frac{F_l.b}{7}[N-m]$$

at centre of neck bearing
$SF = 0.6\ F_r$ [N]

at top and bottom ends of the rudder blade :
$= 0.1\ F_r$ [N]

at mid-height of the rudder blade.
$R = 0.6\ F_r$ [N]

at the heel pintle bearing;
$= 0.7\ F_r$ [N]

at the neck bearing / stern pintle;
$= 0.1\ F_r$ [N]

at the upper bearing.

- For spade rudders :

$$BM = \frac{F_r.A_1.b_1}{A}[N-m]$$

at any cross section below and including the neck bearing.

$$SF = \frac{F_r.A_1}{A}[N]$$

at any cross section up to the centre of the neck bearing.

$$R = \frac{b_2+b_3}{b_3}.F_r[N-m]$$

at the neck bearing.

$$= \frac{b_2}{b.}F.[N]$$

at upper bearing

where,

A_1 = rudder area below the cross section under consideration.

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b_1 = vertical distance from the centroid of A_t to the cross section;
b_2 = vertical distance from the centroid of rudder area A to the centre of the neck bearing, and
b_3 = vertical distance between the centres of the upper and lower bearings.

3.3.3 At upper bearings the bending moments are to be taken as zero and between the upper bearing and the neck bearing the bending moments may be varied linearly.

Section 4

Rudders Blades

4.1 Construction details

4.1.1 Care is to be taken to avoid notch effects and to maintain continuity of strength around cut-outs and openings in the side plating. The plating thickness is to be increased suitably and comers are to be well rounded and ground smooth.

4.1.2 Side plating and vertical webs transmitting the torque are to be welded to the coupling flange by full penetration welds.

4.1.3 In general, welds between plates and heavy pieces are to be made as full penetration welds. Where back welding is not practicable welding is to be performed against backing bar or equivalent.

4.1.4 Webs are to be connected to the side plating in accordance with Ch.14. Where fillet welding is not practicable, side plating is to be connected by means of stot welding to flat bars welded to the webs. Normally stots of length 75 [mm], breadth at least twice the side plating thickness and spaced 200 [mm] centre to centre will be accepted. The ends of the stots are to be well rounded. In areas subjected to large bending stresses, horizontal stots may require to be replaced by continuous weld.

4.1.5 Arrangement is to be provided to drain the rudders completely. Drain plugs are to be provided with efficient packing.

4.1.6 Internal surfaces of rudders are to be efficiently coated for corrosion resistance after completion of fabrication and testing. Where it is intended to till the rudder with plastic foam, details of the foam material are to be submitted.

4.2 Double plated rudders

4.2.1. Thickness 't' of the rudder side, top and bottom plating is not be less than :

$$t = 5.5sf_a\sqrt{\left(T+\frac{F_r}{A}10^{-4}\right)}.10^{-3}+2.5mm$$

Where,

$$f_a = \sqrt{1.1-0.5(s/1000l)^2}\ \max.1.00$$

s = the smaller of the distances between the horizontal or the vertical web plates (mm).

l = the larger of the distances between the horizontal or the vertical web plates [m].

The thickness 't' is however not to be less than the minimum side shell thickness as per Pt.3, Ch.7.

For nose plates the thickness is to be increased to 1.25 t.

4.2.2 The thickness of the vertical and horizontal webs is not to be less than 70 per cent of the requirement given in 4.2.1 with a minimum of 7 [mm].

4.2.3 The thickness of side plating and vertical webs forming the main piece may have to be increased locality in way of the coupling and cut outs or openings, if any.

4.3 Single plated rudders

4.3.1 Rudder blade thickness is not to be less than:

$t = 1.5.\ y.\ V.\ 10^{-3} + 2.5$ [mm]

where y is the spacing of horizontal arms, [mm]; and V, the speed in knots as per 3,1.1.

4.3.2 Rudder blade is to be stiffened by horizontal arms spaced not more than 1000 [mm] apart. The arms are to be efficiently attached to the main piece. The thickness of the

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arms is not to be less than the blade thickness. The section modulus of the arms in way of main piece is not to be less than:

$Z = 0.5 \cdot y \cdot X^2 V^2 \cdot 10\text{-}3\ [cm^3]$

Where

x is the distance from the centre line of the stock to the after end of the rudder [m].

4.3.3 The diameter of the maintenance at top end is not to be less than that of the lower rudder stock, and it may be gradually reduced towards lower end.

Section 5

Rudder Stock and Pintles

5.1 Rudder stock

5.1.1 Diameter of the rudder stocks, when obtained by direct calculation, are normally to give an equivalent stress se not exceeding 138 [N/mm^2] i.e.

$$\sigma_e = \sqrt{\sigma^2 + 3\tau_t^2} \leq 138[N/mm^2]$$

Where,

σ is the bending stress [N / mm^2]
τ is the torsional shear stress [N/mm^2].

This requirement is regardless of the liners; and both ahead and astern conditions are to be considered.

5.1.2 The diameter of the rudder stock at and above rudder carrier is given by

$$d_u = 4.0^3\sqrt{(Q_r)}[mm]$$

5.1.3 The diameter *of* rudder stock at any other cross section is given by

$$d_s = d_u \cdot^{-6}\sqrt{\left[1 + \frac{4}{3}\cdot\frac{BM^2}{Q_r^2}\right]}[mm]$$

where BM is the bending moment at the cross section under consideration obtained as per 3.3.

5.1.4 The diameter of the rudder stock al neck bearing is to be maintained to a point as far as practicable above the top of the neck bearing and may subsequently be tapered to that required at the rudder carrier. The length of the taper is to be at least three limes the reduction in diameter. Particular care is to be taken to avoid the formation of a notch at the upper end of the taper.

5.1.5 Sudden changes of section or sharp corners in way of the rudder coupling, jumping collars and shoulders for rudder carriers are to be avoided. Jumping collars are not to be welded to the rudder stock. Keyways in the rudder stock are to have rounded ends and the corners at the base of the keyway are to be adequately radiused.

5.2 Pintles and bearings

5.2.1 The diameter d_p of the pintles, measured on the inside of liners where fitted, is not to be less than;

$$d_p = 0{,}35\ \sqrt{R}\ [mm]$$

where
R = Reaction force |N] at the pintle bearing, obtained as per Sec. 3.3.

5.2.2 Pintles are to have a conical attachment to the gudgeons and the taper on diameter is generally to range between 1:8 to 1:12. The slugging nut is to be efficiently secured. An effective sealing against sea water is to be provided at both ends of the cone

5.2.3. The length of pintle housing in the gudgeon is not to be less than the pintle diameter d_p. The thickness of the pintle housing is not to be less than 0.25 d_p

5.2.4 Where liners are fitted to pintle, they are to be shrunk on or otherwise efficiently secured. If liners are to be shrunk on, the shrinkage altowance is to be indicated on the plans where liners formed by stainless steel weld deposit, the pintles are to be of weldable quality steel. and details of the procedure are to be submitted Bushing is to be effectively secured against movement.

5.2.5. Pintle clearances are normally to be as given in Table 5.2.5.

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Attention is to be paid to the manufacturer's recommendations particularly where bush material) requires pre-soaking.

Table 5.2.5. Pintle Clearnaces	
- For metal bearing material	0.001 d_p + 1.0 [mm]
- for synthetic bearing	To be specially determined considering the swelling and thermal expansion.

Material	Properties of the material, but not less than 1.5 [mm]

5.2.6. The bearing pressure 'p' due to reaction 'R' on projected bearing area is not to exceed the values given in Table 5.2.6. For the purpose of this calculation, the bearing length is not to be taken greater than 1.2 times the rudder stock or pintle diameter measured outside of liners, if liners, if fitted. Higher values than given in the table may be taken on verification by tests.

Table 5.2.6. : Bearing Pressure	
Bearing Materials	**P [N / mm^2]**
Steel bronze against lignum vitae	2.5
Steels against white metal, oil lubricated	4.5
Steel against synthetic material with hardness between 60 and 70 shore D(1)	5.5
Steel against stainless steel, bronze and hot pressed bronze – graphite materials.	7.0
Note : (1) Indentation hardness test at 23^0 C and with 50% moisture, according to a recognized standard. Synthetic bearing materials to be of approved type.	

Section 6
Rudder Couplings

6.1 Horizontal bolted couplings

6.1.1 The diameter of the coupling bolts is not to be less than;

$$d_b = 0.62\left[\frac{d_s^{\,3}}{n.e._m}\right]^{1/2} [mm]$$

where.
d_s = Rule stock diameter [mm) in way of the coupling flange;

n = total number of bolls;

e_m = mean distance of the boll axis from the centre of the boll system [mm].

6.1.2 Coupling bolts are to be fitted bolts and a minimum of six (6) bolts are to be provided. Their nuts are to be effectively tocked.

6.1.3. Mean distance em from the centre of the bolts tothe centre of the boll system is not to be less than 0.9 d_s [mm]. In addition, where the coupling is subjected to bending stress the mean athwartvessel distance From the centre of bolls to the tongitudinal centreline of the coupling is not to be less than 0.6 d_s [mm].

6.1.4 The thickness of coupling flanges is not to be less than the diameter of the coupling bolls.

6.1.5 The width of material outside the boll holes is not to be less than 0.67 d_b [mm].

6.2 Vertical flange couplings
6.2.1 The diameter of the coupling bolts is not to be less than:

$$d_b = 0.81\left[\frac{d_s^{\,3}}{n}\right]^{1/2} [mm]$$

where,

d_s = Rule stock diameter [mm] in way of the coupling flange

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n = total number of bolts, not to be less than 8.

6.2.2. The first moment of area of the bolts about the centre of the coupling to be not less than :

$$M = 0.000043\ ds^3\ [cm^3]$$

6.2.3. The thickness of the coupling flanges must be at least equal to the bott diameter; and the width of the flange material outside the bolt holes must be greater than or equal to 0.67 d_b.

End of Chapter

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Chapter 13

Anchoring and Mooring Equipment

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1.	General
2.	Structural Arrangement for Anchoring Equipment
3.	Equipment Specification
4.	Anchors
5.	Anchor Chain Cables
6.	Towlines and Mooring Lines
7.	Windlass

Section 1
General

1.1 Introduction

1.1.1 To entitle a vessel to the letter 'L' in her character of classification anchoring and mooring, equipment is to be provided in accordance with the requirements of this Chapter.

These requirements are based on maximum current of 8 [km/hr], wind speed of 25 [m/sec], water depth of 5-7 [m] and good holding ground conditions. Where environmental conditions are more onerous, special consideration will be required.

1.1.2 Except in case of tugs, towlines are not subject of classification and the details given in the equipment table are for guidance purpose only. However, for tugs intended for towing other vessels, having onboard suitable lines for the same purpose, the requirement of towline may be waived with written concurrence from the Owners.

1.1.3 Attention is drawn to any relevant requirements of the local Authorities with which the vessel is to be registered.

1.2. Documentation

1.2.1 The arrangement of anchoring and mooring equipment and Equipment Number calculations are to be submitted for information.

1.2.2 Following details of the proposed equipment are to be submitted for approval:-

1) Number, weight, type and design of anchors.

2) Length, diameter, grade and type of chain cables.

3) Type and breaking toad of steel and fibre. ropes.

1.3 Symbols

1.3.1 L.B.T as defined in Ch.1, Sec.2.

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Section 2

Structure Arrangement for Anchoring Equipment

2.1 General

2.1.1 The anchors are normally to be housed in hawse pipes and anchor pockets of adequate size, scanning and suitable form to prevent movement of anchor and chain due to wave action.

The arrangements are to provide an easy lead or chain cable from windlass to the anchors. Upon release of the brake, the anchors are to immediately start falling by their own weight. Substantial chafing lips are to be provided at shell and deck. These are to have sufficiently large, radiused Faces to minimize the probability of cable links being subjected to large bending stresses, Alternatively, roller fairleads of suitable design may be fitted.

Alternative arrangements for housing of anchors will be specialty considered.

2.1.2 The shell plating and framing in way of the hawse pipes are to be reinforced as necessary.

2.1.3 The chain tocker is to have adequate capacity and depth to provide an easy direct lead for the cable into the chain pipes, when the cable is fully stowed. The chain pipes are to be of suitable size and provided with chafing lips. The port and starboard cables are to have separate spaces. The chain lockers boundaries are to be watertight. Provisions are to be made to minimize the ingress of water to the chain locker in bad weather. Adequate arrangement for drainage of chain lockers is to be provided.

Provisions are to be made for securing the inboard ends of the chains to the structure. The strength of this attachment should be between 15 percent to 30 percent of the breaking strength of the chain cable. It is recommended that suitable arrangements be provided so that in an emergency the chain can be readily made to slip from an accessible position outside the chain locker.

2.1.4 The windlass and chain stoppers are to be efficiently bedded and secured to deck. The thickness of deck plating is to be increased in way of the windlass and chain stoppers and adequate stiffening underneath is to be provided.

Section 3
Equipment Specification

3.1 Equipment number

3.1.1 The equipment number, EN. on which the requirements of equipment are based is to be calculated as foltows :

$$EN = \Delta^{2/3} + 0.1A$$

Δ = moulded displacement, (t), corresponding to the maximum toad water line

A = area [m^2] in profile view of the hull above the maximum load waterline, including super-structures, deck houses, trunks and hatch coaming, which are within the Rule length the vessel. Houses of breadth less than B/4 may be disregarded

In the calculation of A, sheer and trim are to be ignored.

Parts of windscreens or bulwarks which are more than 0.8 [m] in height are to be regarded as parts of houses when determining A.

3.2 Equipment

3.2.1 The anchors, chain cables, towlines and mooring lines for all vessels are to comply with Table 3,2.1, except where modified for particular vessel types as per 3.2.2 to 3.2.6 below.

3.2.2 For vessels without a sharp stem, a single anchor of twice the mass may be fitted in lieu of the two bower anchors required as per the table.

3.2.3. For all self-propelled vessels except tugs, operating rivers where, in view of their length, they cannot safely turn for anchoring with the bow in an upstream direction, the mass of the

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stern anchor is to be twice that required as per the table.

3.2.4 For tugs intended for pushing or side tow operations, two stern anchors are to be provided and the mass of each anchor is to be based on EN calculated considering the complete barge train; but not less than 300 (kg)

3.2.5 For tugs intended for towing operations only, stern anchors need not be provided; and for tugs intended for pushing operations only bower anchors not be provided.

3.2.6. For non-propelled vessels intended to be towed, two stern anchors of the tabular mass or one stern anchor of twice the mass are to be provided.

Table 3.2.1 : Equipment - Anchors, anchor cables, towlines and mooring lines

EN	Stockless bower anchors See Note 1 Mass (kg)	Stockless bower anchors See Note 1 Mass (kg)	Towline, (Recommendation) See Note 3	Mooring lines, See Note 4
			Minimum breaking strength [kN]	Minimum breaking strength [kN]
4 & ≤ 6	35	-	-	-
> 6 & ≤ 8	45	-	-	-
> 8 & ≤ 10	60	-	-	14
> 10 & ≤ 12	70	-	-	17
> 12 & ≤ 14	85	-	-	20
> 14 & ≤ 17	100	-	-	24
> 17 & ≤ 20	115	-	-	28
> 20 & ≤ 25	145	-	56	36
> 25 & ≤ 30	175	-	67	43
> 30 & ≤ 40	230	115	90	57
> 40 & ≤ 50	290	145	112	72
> 50 & ≤ 60	345	175	134	86
> 60 & ≤ 70	400	200	157	100
> 70 & ≤ 80	460	230	179	115
> 80 & ≤ 90	520	260	202	129
> 90 & ≤ 100	575	290	224	143
> 100 & ≤ 110	635	320	231	158
> 110 & ≤ 120	690	345	238	172
> 120 & ≤ 130	735	370	245	182
> 130 & ≤ 140	780	390	252	187
> 140 & ≤ 150	825	420	259	192
> 150 & ≤ 160	870	435	266	197
> 160 & ≤ 170	915	460	272	202
> 170 & ≤ 180	960	480	279	208
> 180 & ≤ 190	1000	500	286	213
> 190 & ≤ 200	1045	525	293	218
> 200 & ≤ 210	1090	550	300	223
> 210 & ≤ 220	1135	570	307	228
> 220 & ≤ 230	1180	590	314	233
> 230 & ≤ 240	1225	615	321	238
> 240 & ≤ 250	1270	635	328	244

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Table 3.2.1. : Equipment – Anchors, anchor cables, towlines and mooring lines (Contd.)

EN	Stockless bower Anchors, See Note 1 Mass [kg]	Stockelss stern Anchors, See Note 2 Mass [kg]	Towline, (Recommendation) See Note 3	Mooring lines, See Note 4
			Minimum Breaking strength [kN]	Minimum Breaking strength [kN]
> 250 & ≤ 260	1315	660	335	249
> 260 & ≤ 270	1360	680	342	254
> 270 & ≤ 280	1405	700	349	259
> 280 & ≤ 290	1450	725	355	264
> 290 & ≤ 300	1495	750	362	269

NOTES:

1. Normally two stockless bower anchors are required, but see 3.2.2.

2. i) For self propelled vessels, see 3.2.3.
 ii) For lugs, see 3.2.4 and 3.2.5.
 iii) For non-propelled vessels being towed, see 3.2.6

3. The length of the towline is to be not less than given by the following formulae, as appropriate:

a) L + 75 [m] for vessels
for which 20 ≤ EN≤160.

b) L + 100 [m] for vessels
for which EN > 160.

For tugs intended for towing, the breaking strength of the towline is not to be less than twice the maximum bollard pull.

4. Two mooring lines are required for vessels for which EN is below 100 and three for vessels having larger values. The length of each wire in the mooring lines is to be not less than 2.5L, but need not be more than 100 [m].

5. The length of short or stud link chain cable for each bower anchor is to be not less than L + 10 [m) with a minimum of 40(m] and a maximum of 60 [m]. The minimum breaking strength of the chosen diameter and grade of short or stud link chain cable or wire is to be not less than 0.343 limes the mass of anchor [kg) in case of ordinary anchor and 0.458 times the mass of anchor [kg] in case of HHP anchor.

6. The length of cable for each stern anchor, on vessels for which EN > 30, is to be not less than 40 [m].

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Section 4
Anchors

4.1 General

4.1.1 Anchors are to be of an approved design and of a type suitable for the intended service.

4.1.2 The mass of each bower anchor as required in Sec. 3 is for anchors of equal mass. The masses of individual anchors may vary by ± 7 per cent of the tabular masses, provided that the total mass of the anchors is not less than would have been required for anchors of equal mass. Where the maximum current expected in service differs considerably from 8 [km/h], the anchor weight required by Table. 3.2.1 is to be suitably modified.

4.1.3 The mass of the head, including pins and fittings, of an ordinary stockless anchor is not to be less than 60 per cent of the total mass of the anchor.

4.1.4 The mass 'ex stock' of stocked bower or stream anchors is not to be less than 80 percent of the tabular mass of ordinary stockless bower anchors. The mass of the stock is to be 25 per cent of the total mass of the anchor including the shackle etc. but excluding the stock.

4.1.5 When anchors of a design approved for the designation 'High Holding Power are used as bower anchors, the mass of each such anchor may be 75 per cent of the tabular mass of ordinary stockless bower anchors. For approval of HHP anchors, see Pt.3. Ch.15, Cl.4.2 of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules).

4.1.6 Anchor shackles are to be of a design and material suitable to the service for which the anchor is intended.

4.2 Manufacture and testing

4.2.1 Anchors and anchor shackles are to be manufactured and tested in accordance with the requirements of Pt.2, Ch.10 of the Rules and Regulations for the Consumption and Classification of Steel Vessels (Main Rules).

Section 5
Anchor Chain Cable

5.1 General

5.1.1 Chain cables may be either short link or stud link and of mild steel or special quality steel meeting the requirements of breaking strength and the length as given in Table 3.2.1. The required chain diameter is to be obtained by using tables of chain breaking strength given in Pt.2, Ch.10 of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules).

5.1.2 In conjunction with HHP anchors, only Grade CC2 or ISO Grade 40 chain cable is to be used, however, for HHP anchors having a mass of 300 [kg] or less. Grade CC1 chain cable may be accepted provided the diameter of Grade CC1 cable required is increased by five per cent.

5.1.3 When desired by the Owners, steel wires may be used instead of chain cables. Steel wires are to have a breaking strength not less than that required for chain cables and their length is to be not less than 25 per cent in excess of the length required for chain cable as per Table 3.2.1.

In such cases it is recommended that a short length of chain or a swivel is Titled between the anchor and the wire rope.

5.2 Manufacture and testing

5.2.1 Chain cables, steel wire ropes and shackles are to be manufactured and tested in accordance with the requirements of Pt.2, Ch.10 of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules).

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Section 6

Towlines and Mooring Lines

6.1 General

6.1.1. Towlines and mooring lines may be of steel wire, natural fibre or synthetic fibre and are to be made by an approved manufacturer.

6.1.2 The number, length and breaking strength of towlines and mooring lines are to be as required by Sec.3. Also see Sec.1.1.2.

6.1.3 The lengths of individual mooring lines may be reduced by up to 10 per cent of the tabular length, provided that the total length of mooring lines is not less than would have resulted had all tines been of equal tabular length.

6.1.4. The diameter of a fibre rope is not to be less than 20 [mm]

6.2 Manufacture and testing

6.2.1 Steel wire ropes are to be manufactured and tested in accordance with the requirements of Pt.2, Ch.10 of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules).

6.3 Mooring arrangement

6.3.1 Means are to be provided to enable mooring lines to be efficiently secured on board vessel by an adequate number of suitably placed bollards on either side of the vessel.

6.3.2 Mooring winches should be fitted with drum brakes of sufficient strength to prevent unreeling of the mooring lines.

6.3.3. Adequate stiffening is to be provided in way of Bollards. Mooring winches etc.

Section 7

Windlass

7.1 General

7.1.1 The requirements of 7.1.2 to 7.1.5 apply equally to bow and stem anchor winches.

7.1.2 On vessels equipped with anchors having a mass of over 50 [kg], windlass(es) of sufficient power and suitable for the type and size of chain cable are to be fitted. Arrangements for anchor davits will be specially considered,

7.1.3 The windlasses may be hand or power operated. Hand operated windlasses are acceptable only if the effort required at the handle does not exceed 15 [kgf] for raising one anchor at a speed of not lessthan 2 [m/min] and making about 30 turns of the handle per minute.

7.1.4 A power operated windlass is to be capable of exerting, for a period not less than 30 minutes, a continuous duty pull of 28 d_c^2[N] and to raise one anchor with chain cable at a mean speed of not less than 9 [m/min], d_c [mm] being the diameter required for Grade CC1 chain cable.

7.1.5 Winches suitable for operation by hand as well as by external power are to be so constructed that the power drive cannot activate the hand drive.

7.2 Testing

7.2.1 After installation on board, anchoring tests are to be carried out to demonstrate satisfactory working

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Chapter 14
Welding

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3. Welded Connections

Section 1
General

1.1 Scope

1.1.1 Welding In steel hull construction of all types of vessels is to comply with the requirements of this Chapter.

Welding in aluminium structures will be specially considered.

1.2 Documentation

1.2.1 Connection details of the welded structural members, including type and size of welds are to be clearly indicated on the plans submitted for approval. An explanation of all symbols or abbreviations used in detailing the weld connections should be included on the plans.

Details of proposed welding procedure is to be submitted indicating preheating temperature and any post welding. heat treatment, if employed. Extent to which automatic welding, including deep penetration welding, is to be employed should also be indicated.

Section 2
Welding

2.1 Welders and supervision

2.1.1 Welders are to be proficient in the type of work on which they are to be engaged. The records of their tests and qualifications are to be kept by the builders and made available to the Surveyors. A sufficient number of skilled supervisors are to be employed to ensure effective control at all stages of assembly and welding operations.

2.2 Welding electrodes

2.2.1 Electrodes and welding consumables approved by IRS in accordance with the requirements of Pl.2. Ch.11 and suitable for the type of joint and grade of steel, are to be used.

2.2.2 For the connection of two different grades of steel of the same tensile strength properties, electrodes suitable for the lower grade will be generally acceptable except at structural discontinuities or other points of stress concentration.

2.2.3 For the connection of steel of different tensile strengths, the electrodes are to be suitable for the tensile strength of the component, on the basis of which the weld fillet size has been determined In Sec.3.

2.3 Preparation for welding

2.3.1 The parts to be welded are to be fitted in accordance with the approved joint detail. The edge preparation is to be accurate and uniform.

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Means are to be provided for maintaining the parts to be welded, in correct position during the welding operations. Excessive force is not to be employed in aligning the pails before welding and The means employed in maintaining The alignment are to be so arranged as to allow for expansion and contraction during the welding operation. All methods employed in correcting improper alignment are to be to the satisfaction of the Surveyor.

2.3.2All surfaces to be welded are to be clean dry and free from rust, scale and grease. The surface and boundaries of each run of deposit are to be thoroughly cleaned and freed from slag before the next run is applied. Before a manual sealing run is applied to the back of a weld. The original root material is to be gouged out to sound metal.

2.3.3Tack welding is to be kept lo a minimum, and where used, should be equal in quality to that of the finished welds any defective tack weld is to be cut out before completing the finished welds. Care is to be taken in removing the lack welds to ensure that the structure is not damaged in doing so.

2.4 Welding procedure

2.4.1Only approved welding procedures are to be used, See 2.5.

2.4.2Structural arrangements are to be such as to allow adequate access for satisfactory completion of all welding operations. Welded joints are to be so arranged so as to facilitate down hand welding wherever possible.

2.4.3 The sequence of welding is to be so planned that any restraint during welding operations is reduced to a minimum. The ends of the frames and stiffeners should be left unattached to the plating at the subassembly stage until connecting welds are made in The intersecting systems of plating, framing and stiffeners, at the erection stage.

Where a butt meets a seam, the welding of the seam should be interrupted well clear of the junction and not be continued until the butt is completed. Welding of the butt should continue past the open seam and The weld be chipped out for the seam to be welded straight through.

2.4.4 Adequate precautions are to be taken to ensure that The welding site is protected from the deleterious effects of high moisture, severe wind and extreme cold.

2.5 Approval of procedures

2.5.1 Unless previously approved, welding procedures are to be established by the yard and forwarded to IRS for approval. The welding procedure specifications are lo include detailed description of the base material, primer, plate thickness range, joint/groove design, welding consumable, welding position, welding techniques, welding parameters, preheating / inter pass temperature and post heat treatment if any.

The welding for procedure qualification and subsequent testing, are to be witnessed by the IRS Surveyor.

2.6 Inspection of welds

2.6.1 Effective arrangements are to be provided for the inspection of finished welds to ensure that all welding has been satisfactorily completed.

2.6.2 All finished welds are to be visually inspected and are to be sound, uniform and substantially tree from slag inclusions, porosity, undercutting or other defects. Welds and adjacent base metal are to be Tree from injurious arc strikes.

23.3 For the examination of important structural welds, visual inspection is to be supplemented by radiography or other acceptable nondestructive crack or flaw detection methods. The extent of such examination is to be to the Surveyors' satisfaction, but particular attention is to be given to the following locations:

a) Junction and crossings of seams and butts in strength deck, sheer strake, side and bottom shell within 0.4L amidvessels.

b) Butts of keel plating and rounded sheers rake within 0.4L amidvessels,

c) Insert plates in way of hatch openings on the strength deck.

d) Butts of longitudinal framing and longitudinal bulkhead stiffeners within 0.4L amidvessels.

2.6.4. Defective sections of welds as found by visual or non - destructive examination or leakages under hydrostatic tests, are to be gouged out as necessary and carefully rewarded.

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Section 3

Welded Connections

3.1 Butt welds

3.1.1 Plates of equal thickness may be manually butt welded as per Fig.3.1.1. For automatic welding procedures and special welding techniques, the welding procedure will be specially considered.

3.1.2 For joints of plates with difference in thickness of more than 4 [mm], the thicker plate is to be tapered. The taper is not to exceed 1:3. Edge preparation after the tapering is to be as indicated in Sec. 3.1.1.

3.1.3 All manual butt welds are normally to be welded from both sides. Where a back ceiling run is not practicable or in certain cases when the stress level in the members is very low welding on one side may be permitted provided the welding process is found satisfactory.

Where stiffening members, attached by continuous fillet welds, cross the finished butt or seam welds, these welds are to be made flush in way of the faying surface. Similarly for butt welds in webs of stiffening members, the butt weld is to be first completed and made flush with the stiffening member before the stiffener is connected to the plating by fillet weld. The ends of the flush portion are to run out smoothly without notches or any sudden change of section. Where such conditions can not be complied with, a scallop is to be arranged in the web of the stiffening member. Scallops are to be of such size and in such a position, that a satisfactory weld can be made.

3.2 'T' connections

3.2.1 The throat thickness (See Fig,3.2.1) of the fillet welds is given by:

throat thickness = t_p weld factor. d/s

where,

t_p = thickness [mm], of the thinner of the two parts being connected.

d = distance [mm], between the successive weld fillets.

s = length [mm], of the correctly proportioned weld fillets, clear of end createrss is not to be less than 75 [mm].

The weld factors for various connections are generally to be as given in Table - 3.2.1.

Where an approved automatic deep penetration procedure is used the weld factors may be reduced by 15 per cent.

3.2.2 The throat thickness is not to be less than 3.0 [mm] and generally not to be greater than 0.44 t_p for double continuous welds and the greater of 0.44 t_p or 4.5 [mm] for intermittent welds.

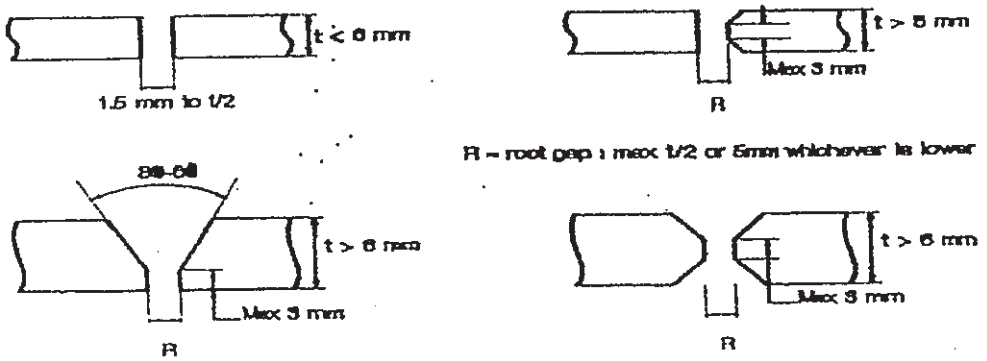


Fig.3.1.1 : Manually welded butt joints

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Table 3.2.1 : Weld factors for fillet welds					
	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Single Bottom					
Centre girder	To keel plate or bar keel	0.3	*		
	To face plate	0.15		*	
Side girder	To bottom shell	0.15		*	
	To face plate	0.13		*	
	To floors	0.20		*	
Floors	To keel plate	0.15	*		
	To shell plating	0.15		*	
	To centre girder	0.35	*		
	To longitudinal bulkheads	0.35	*		
	To face plate	0.15		*	
	To sterntube covering	0.15	*		
Bottom longitudinal	To shell plating	0.13		*	
Double Bottom, See Note 1					
Centre girder or duct keel	To keel plate		*		
	To inner bottom	0.3		*	
Side girder	To bottom shell	0.25		*	
	To inner bottom	0.15		*	
	To floors	0.15		*	
Floors	To shell plating	0.15		*	
	To inner bottom / margin plate	0.15		*	
	To centre girder / keel plate	0.20			
Margin plate	To shell plating	0.4	*		
	To inner bottom	0.4	*		
Inner bottom	To side shell	0.4	*		
Tank side brackets	To shell plating	0.3		*	
	To margin plate	0.3		*	
Bracket floor	To inner bottom / bottom shell	0.15		*	
	To centre girder	0.25		*	
	To side shell / margin plate	0.25		*	
Bottom frames	To shell plating	0.13		*	
Reverse frames	To inner bottom	0.13		*	
Longitudinals	To shell plating	0.13		*	
	To inner bottom	0.13		*	
Tank boundaries and bilge wells		0.40	*		
Stiffeners	To floors and girders	0.13		*	

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	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Structure in Machinery Space					
Floors and girders	To shell & inner bottom	0.3	*		
	To face plate	0.2			
Transverse & longitudinal frames	To shell plating	0.15			
Floor	To centre girder in way of engine, thrust blocks & boiler seatings				
	- in single bottom	0.50	*		
	- in double bottom	0.30	*		
Main engine foundation girders	To top plate	0.5	*		See Note 2
	To hull structure	0.4	*		
Floors	To engine girder	0.4	*		
Brackets etc.	To engine girders	0.3	*		
Side Structure					
Transverse frames	To side shell				
	- in tanks	0.13		*	
	- elsewhere	0.11		*	
Side longtitudinals	To shell plating	0.13		*	
Web frames & side stringers	To shell plating				
	- within 0.2 x span from ends	0.35	*		
	- elsewhere	0.20		*	
	To face plate and tripping bracket	0.15		*	
Web frames	To side stringers	0.3	*		
Bilge keel	To ground bars	0.2	*		
Bilge keel ground bar	To side shell	0.35	*		Single cont.
Deck Structure					
Strength deck	To shell	F.P.			See note 3
Other decks	To shell and bulkheads	0.3	*		Generally
Deck beams	To deck plating				
	- in tanks	0.13		*	
	- elsewhere	0.11		*	
Deck longitudinals	to decks	0.13		*	
Deck girders	To deck plating				
	- within 0.2 x span from ends	0.35	*		
	- elsewhere	0.20		*	
	To face plating and tripping brackets	0.15		*	
Cantilever webs	To shell, decks, face plates and longitudinal girders at ends	0.35	*		
Pillars	To deck, inner bottom and pillar brackets	0.40	*		

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	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Construction in 0.25L from F.P.					
Floors and girders	To shell	0.25	*		
	To inner bottom	0.25		*	
Bottom longitudinals	To shell	0.15	*	*	
Shell	To transverse & longitudinal side framing	0.15		*	
Panting stringers	To shell & frames	0.30	*		
All internal structure	In fore peak (unless a higher factor is specified)	0.13		*	
Aft Peak Construction					
All internal structure	On bottom, side shell & aft peak bulkhead	0.3	*		See 3.2.5
Boundaries of	Watertight, oiltight & wash bulkheads and shaft tunnels	0.4	*		To be specially considered for chemical cargo tanks
Stiffeners	On tank & wash bulkheads	0.13		*	
	On pillar bulkheads	0.13		*	
	On ordinary bulkheads	0.11		*	
Vertical & horizontal girders in tanks & wash bulkheads	To bulkhead plating				
	- within 0.2 x span from ends	0.40		*	
	- else where	0.40		*	
	- to face plate	0.30		*	
	- to tripping brackets	0.30			
Vertical & horizontal girders elsewhere	To bulkhead plating	0.15			
	- with 0.2 x span from ends	0.35		*	
	- elsewhere	0.20		*	
Primary structures in Cargo Tanks					
Webs	To shell, deck & bulkheads				
	- within 0.2 x span from ends	0.4	*		
	- elsewhere	0.3	*	*	
Webs	To face plates	0.3	*		
Webs	To webs of other primary members	0.3	*		
Boundaries	Of tripping brackets	0.15		*	
Superstructures & deckhouses					
External bulkheadsq	To deck				
	- on 1st and 2nd tiers	0.40	*		
	- elsewhere	0.25	*		
Internal bulkheads	Boundaries	0.13		*	
Stiffeners	To external bulkheads	0.10		*	

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	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Construction in 0.25L from F.P.					
Floors and girders	To shell	0.25	*		
	To inner bottom	0.25		*	
Bottom longitudinals	To shell	0.15	*	*	
Shell	To transverse & longitudinal side framing	0.15		*	
Panting stringers	To shell & frames	0.30	*		
All internal structure	In fore peak (unless a higher factor is specified)	0.13		*	
Aft Peak Construction					
All internal structure	On bottom, side shell & aft peak bulkhead	0.3	*		See 3.2.5
Boundaries of	Watertight, oiltight & wash bulkheads and shaft tunnels	0.4	*		To be specially considered for chemical cargo tanks
Stiffeners	On tank & wash bulkheads	0.13		*	
	On pillar bulkheads	0.13		*	
	On ordinary bulkheads	0.11		*	
Vertical & horizontal girders in tanks & wash bulkheads	To bulkhead plating				
	- within 0.2 x span from ends	0.40		*	
	- else where	0.40		*	
	- to face plate	0.30		*	
	- to tripping brackets	0.30			
Vertical & horizontal girders elsewhere	To bulkhead plating	0.15			
	- with 0.2 x span from ends	0.35		*	
	- elsewhere	0.20		*	
Primary structures in Cargo Tanks					
Webs	To shell, deck & bulkheads				
	- within 0.2 x span from ends	0.4	*		
	- elsewhere	0.3	*	*	
Webs	To face plates	0.3	*		
Webs	To webs of other primary members	0.3	*		
Boundaries	Of tripping brackets	0.15		*	
Superstructures & deckhouses					
External bulkheadsq	To deck				
	- on 1st and 2nd tiers	0.40	*		
	- elsewhere	0.25	*		
Internal bulkheads	Boundaries	0.13		*	
Stiffeners	To external bulkheads	0.10		*	

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	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Hatch ways and closing appliances					
Hatch caming	To deck at corners	0.5	*		
	To deck elsewhere	0.4	*		
	To face plate	0.4	*		
	To hatch cover rest bar	0.16	*		
Hatch cover	To stiffeners	0.12		*	
Rudders & Nozzles					
Rudders					See Note 4
Main piece members	To coupling flange	F.P.	*		
	To each other	0.44	*		
Rudder plating	To rudder webs, elsewhere	0.20	*		
Nozzles	Generally as for rudders				
Miscellaneous fittings & equipment					
Faming ring for manhole type covers	To deck & bulkhead	0.4	*		
Framing around port and W.T. / oiltight doors	To plating	0.4	*		
Sea – chest boundary welds	Exposed to seal	0.5	*		
	Elsewhere	0.4	*		
Ventilators, air pipes etc.	To deck	0.45	*		
Bulwark stays	To deck	0.4	*		
	To bulwark plating	0.2		*	
Fabricated anchors		F.P.			
Masts, derrick posts, crane pedestals, deck machinery & morning equipment seating – to deck etc.		To be considered in each individual case			

d.c. Double continuous

F.P. Full penetration weld

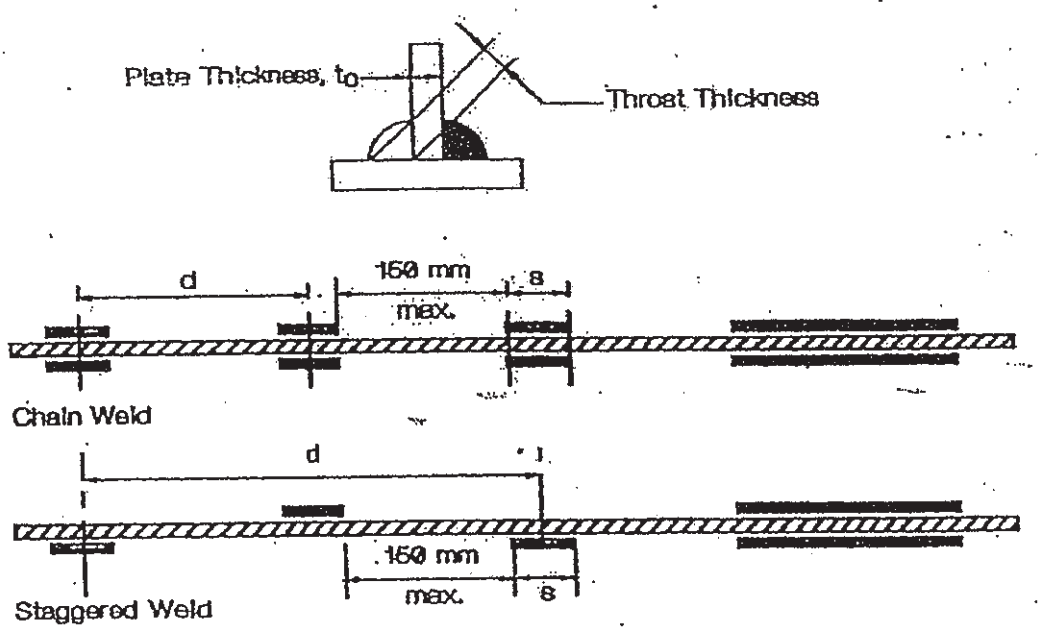
Note 1 For tank boundaries see 3.2.5

Note 2 Preferably to be deep penetration or full penetration weld depending on the thickness of the engine girders.

Note 3 Generally full penetration, but alternative proposals may be considered.

Note 4 See chapter 12, section 4.1.

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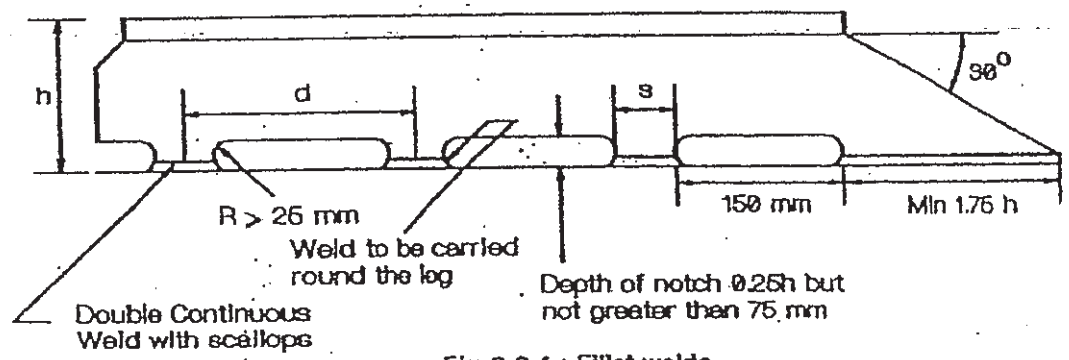


Fig.3.2.1 : Fillet welds

3.2.3 The leg length is not to be less than 2 times the specified throat thickness.

3.2.4 Where the connection is highly stressed, deep penetration or full penetration welding may be required. Where full penetration welding s required, the abutting plate may require to be beveled.

3.2.5 Continuous welding is to be adopted in the following locations and in any other region of high dynamic loading:-

a) Boundaries of weathertight decks and erections, including hatch coamings, companionways and other openings.
b) Boundaries of tanks and watertight compartments.
c) All structures in the after peak and the afterpeak bulkhead stiffeners.
d) All framing within holds of bulk carriers intended for carriage of coal.
e) All welding inside tanks intended for chemicals or edible liquid cargoes.
f) All lap welds in tanks.
g) Primary and secondary members to plating in way of end connections and end brackets to plating in the case of lap connection.
h) Other connections as given in Table - 3 2 1

3.2.6 Where intermittent welding is used, the welding is to be made continuous around the ends of brackets, lugs, scallops and at other orthogonal connections with other members. In tanks for water ballast, cargo oil or fresh water, only scalloped welding is to be used.

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3.2.7 Where structural members pass through the boundary or a tank, and leakage into the adjacent space could be hazardous or undesirable, lull penetration welding is to be adopted for the members for at least 150 [mm] on each side of the boundary. Alternatively, 3 small scallop of suitable shape may be cut in the member close to the boundary outside the compartment, and carefully welded all round.

3.3 Lap connections

3.3.1 Overlaps are not to be used to connect plates which may be subjected to high tensile or compressive loading. However, where they are adopted, the width of overlap is to be adequate to ensure a good weld, the surfaces are to be in close contact and the joints should be closed all round by continuous fillet weld.

3.4 Slot weld

3.4.1 For the connection of plating to internal webs, where access for welding is not practicable, the closing plating is to be attached by continuous full penetration or slot welds to flat bars Tilted to the webs. Slots are to be well rounded at ends, to have a minimum length of 75 [mm] and in general, a minimum within of twice the plating thickness. The distance between the slots is not to exceed 150 [mm]. Complete filling of the solts is normally not permitted.

3.5 End connection

3.5.1 In way of the end connections of girders double continuous welding is to be used all around. The weld area is not to be less than the cross-sectional area of the member, and the throat thickness not less than that given by Table 3.2.1 for gilder ends.

3.5.2 Where stiffeners have bracketed end connections, bracket arms are to be welded all around and the throat thickness is not to be less than 0.35 times the thickness of bracket.

3.5.3. Where stiffeners are continuous at girder. they are to be connected to the webs, either directly and/or by means of lugs. The weld area is to be such that the shear stress does not exceed 80/k [N/mm^2]. Where the shear forces are high, a double sided connection to the web and/or a web stiffener welded on top of the continuous stiffener may be required.

End of Chapter

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Chapter 15

Hull Inspection, Workmanvessel and Testing

Contents

Section

1. Hull Inspection
2. Workmanvessel
3. Testing

Section 1

Hull Inspection

1.1 Approval of works

1.1.1. The builders, intending to class vessels to be built at their yard with Classification society are to demonstrate their capability to carry out the fabrication to acceptable quality standard before the commencement of the fabrication. Similar approval procedure shall apply to subcontractor's work also. Previous experience in the building and repair of revelant structures.

and equipment can be considered favourably in this regard.

1.2. Inspection facilities

1.2.1 Adequate facilities are to be provided to enable the Surveyor to carry out a satisfactory inspection of all components during each stage or prefabrication and construction.

Section 2

Workmanvessel

2.1. General

2.1.1 All workmanvessel is to be of good quality and in accordance with good vesselbuilding practice. Any defect is to be rectified to the satisfaction of the Surveyor before being covered with paint, cement or other composition.

2.1.2 The assembly sequence and welding sequence are to be agreed prior to construction and are to be to the satisfaction of the Surveyor.

2.2 Plate edges and cut-outs

2.2.1 Openings, holes and other cut-outs in the main structural components are to be rounded off by adequately large radii. The free edges of cut-outs. hatch corners etc. are to be properly Prepared and are to be free from notches. All edges should be faired.

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2.3 Cold forming

2.3.1 Flanging and bending or plates while cold forming are not to have an average bending radius less than three times the plating thickness. The minimum radius is not to be less than twice the plating thickness.

2.3.2. During joggling of plates and profiles, the depth of joggle is not to be less than four times and the bending radius not less than twice the web thickness.

2.4 Hammering, bending and straightening

2.4.1 Steel being worked on when hot, is not to be overheated, and it is to be hammered and bent in the appropriate heal condition. Steel which is burnt, is not to be used.

2.4.2. Flame heating may be employed to straighten buckled plating when the buckling is not severe.

Section 3
Testing

3.1 Definitions

3.1.1 Shop primer is a thin coating applied after surface preparation and prior to fabrication as a protection against corrosion during fabrication.

Protective coaling is a final coaling protecting the structure from corrosion.

3.1.2 Structural testing is a hydrostatic test carried out to demonstrate the tightness of the tanks and the structural adequacy of the design. Where practical limitations prevail and hydrostatic testing is not feasible (for example when it is difficult, in practice, to apply the required head at the top of the tank), hydropneumatic testing may be carried out instead. When a hydropneumatic testing is performed, the conditions should simulate, as far as practicable, the actual loading of the tank.

3.1.3 Hydropneumatic testing is a combination or hydrostatic and air testing, consisting of filling the lank within water up to its top and applying an additional air pressure. The value of the additional air pressure is to be at least as given in Sec. 3.4.

3.1.4 Leak testing is an air or other medium test carried out to demonstrate the tightness of the structure.

3.1.5 Hose testing is carried out to demonstrate the lightness of structural items not subjected to hydrostatic or leak testing and to other components which contribute to the watertight or wealhertight integrity of the hull.

3.2. Application

The requirements of this Section apply to :-

- tanks, including independent tanks
- watertight or weathertight structures.

The purpose of these tests is to check the tightness and/or the strength of structural elements.

Tests are to be carried out in the presence of the Surveyor at a stage sufficiently close to completion so that any subsequent work would not impair the strength and tightness of the structure.

For the general testing requirements, See Sec.3.8 and Sec.3.9.

3.3 Structural testing

3.3.1 Structural testing as required in Table

3.3.1 may be carried out before or after launching.

Shop primer may be applied before carrying out the structural testing.

3.3.2 Structural testing may be "carried out after the protective coating has been applied, provided that one of the following two conditions is satisfied:

a) all the welds are completed and carefully inspected visually to the satisfaction of the Surveyor, prior to the application of the protective coaling.

b) leak testing is carried out prior to the application of the protective coating.

However, when leak testing is not carried out, protective coating in way of the following welds should be applied only after the structural testing has been satisfactorily completed:

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- all erection welds, both manual and automatic
- all manual fillet weld connections on tank boundaries and manual penetration welds.

3.4 Leak testing

3.4.1 Where leak testing is carried out in accordance with Table 3.3.1. an air pressure of 7 [kN/m^2] is to be applied during the test.

Prior to inspection, it is recommended that the air pressure in the tank is raised to 10 [kN/m^2] and kept at this level for about 1 hour to reach a stabilized state, with a minimum number of personnel in the vicinity of the lank, and then lowered to the lest pressure,

3.4.2 Welds are to be coated with an efficient indicating liquid.

3.4.3 A U-tube filled with water up to a height corresponding to the test pressure is to be fitted to avoid overpressure of the compartment tested and to verify the lest pressure. The U-lube should have a cross section larger than that of the pipe supplying air.

In addition, the test pressure is also to be verified by means of one master pressure gauge. Altemative means which are considered to be equally reliable, maybe accepted.

3.4.4 Where leak testing is carried out it should be prior to the application of a protective coating, on all fillet weld connections on tank boundaries, penetrations and erection welds on tank boundaries excepting welds made by automatic processes. Selected locations of automatic erection welds and pre-erection manual or automatic welds may require to be similarly tested at the discretion of the Surveyor. taking account of the quality control procedures operating in the vesselyard. For other welds, leak testing may be carried out alter the protective coating has been applied, provided that these welds were carefully inspected visually to the satisfaction of the Surveyor.

Any other recognized method may be accepted to the satisfaction of the Surveyor.

3.5 Hose testing

When hose testing is required to verify the tightness of the structures, as defined in Table 3.3.1, a minimum pressure in the hose of at least 200 [KN/m^2] is to be applied at a maximum distance of 1.5 [m]. The nozzle diameter is not to be less than 12 [mm].

3.6 Hydropneumatic testing

When hydropneumatic testing is performed. The same safety precautions as for leak testing (See Sec.3.4) are to be adopted.

3.7 Other testing methods

Other testing methods may be accepted, at the discretion of IRS, based upon equivalency considerations.

3.8 General testing requirements

General requirements for testing are given in Table 3.3.1.

3.9 Additional requirements for special type vessels/ tanks

In addition to the requirement of Table 3.3.1. particular requirements for testing of certain spaces within the cargo area of following types of vessels are given in Table 3.9.1.

- edible liquid carriers
- chemical carriers

These requirements intend generally to verify the adequacy of the structural design of the tank, based on the loading conditions on which the scanning of the tank structure were determined.

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Table 3.3.1 : General testing requirements

Item number	Structure to be tested	Type or testing	Structural Test pressure	Remarks
1	Double bottom tanks	Structural testing [a]	The greater of the following - head of water upto the top of overflow. - head of water upto the upperment continous deck	Tank boundaries tested from atleast one side.
2	Double side tanks	Structural testing [a]	The greater of the following - head of water upto the top of overflow. 1.0 [m] head of water above highest point of tank	Tank boundaries tested from at least on side.
3	Tank bulkheads, deep tanks	Structural testing [a]	The greater of the following [b] - head of water upto the top of overflow. - 1.0 [m] head of water above highest point of tank. - Setting pressure of the safety relief valves, where relevant	Tank boundaries tested from at least on side.
	Fuel Oil Bunkers	Structural Testing		
4	Fore peak and after peak used as tank	Structural Testing	The greater of the following - head of the water upto the top of overflow. - 1.0 [m] head of water above highest point of tank.	Test of the after peak carried out after the stern tube has been fitted
	Fore peak not used as tank	Structural Testing	- head of water upto the uppermost continous deck for cargo vessels and bulkhead deck for passenger vessels.	
	After peak not used as tank	Leak testing		
5	Water tight bulkheads	Hose testing [c]		Through inspection of bulkhead to be carried out
6	Watertight doors below uppermost continous deck of bulkhead deck	Structural testing [d]	- Water pressure head upto the uppermost continous deck for cargo vessels and bulkhead deck for passenger vessels.	
7.	Double plate rudders	Leak Testing		
8.	Shaft tunnel clear of deep tanks	Hose Testing		
9.	Shell doors	Hose Testing		
10	Weather light hatchcovers and closing appliances	Hose Testing		
11	Chain locker (if aft of collision bulkhead)	Structural Testing	Head of water up to the top	
12	Independent Tanks	Structural Testing	Head of water upto the top of overflow but not less than 0.9 [m]	
13	Ballast ducts	Structural Testing	Bellast pump maximum pressure.	

[a] Leak of hydropneumatic testing may be accepted under the conditions specified in 3.4 provided that at least on tank for each type is structurally tested. This however does not apply to cargo space boundaries in tankers and tanks for segregated cargoes or pollutants. If the structural test reveals weakness or severe faults not detected by the leak test. All tanks are to be structurally tested.

[b] Where applicable, the highest point of tank is to be measured to the dock and excluding hatches.

[c] When hose test cannot be performed without damaging possible outfitting (machinery, cables, switchboards, insulation etc) already installed, it may be replaced, at the decretion of IRS by a careful visual inspection of all the crossings and welded joints, where necessary, dye penetrate test or ultrasonic leak test may be required.

[d] The test may be made before or after the door is fitted. In case the test is done before, hose testing is to be carried out in place after the door is fitted.

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Table 3.9.1. :
Additional testing requirements for spaces within the cargo area of certain types of vessels

Item No.	Type of vessels	Structure to be tested	Testing requirements	Structural test pressure	Remarks
1	Edible liquid carriers	Independent tanks	Structural testing	Head of water up to the top of overflow without being less than 0.9 [m]	
2.	Chemical carriers	Integral or independent tanks	Structural testing of cargo tanks boundaries from at least on side	The greater of the following : - 1.0 [m] head of water above highest point of tank. - Setting pressure of the safety relief valves, where relevant.	

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ANNEXTURE - II

(see rule 18 and sub-rule (6) of rule 19)

Intact Stability Requirements for Vessels operating in Inland Waters

CHAPTER - 1

Regulation - 1

GENERAL

1. The purpose of this Annexure on Intact Stability is to recommend stability criteria and other measures for ensuring the safe operation of all vessels to minimize the risk to such vessels, to the personnel on board and to the environment.

2. Application

2.1 This Code contains intact stability criteria for the following types of vessels
- Cargo vessels
- Cargo vessels carrying timber deck cargo
- Cargo vessels carrying grain in bulk
- Passenger vessels
- Pontoons
- Cargo vessels carrying containers on deck and container vessels

2.2 The requirements for vessels of novel design or vessels not otherwise covered' shalt be specially considered.

3 Definitions

For the purpose of this Annexure the definitions given hereunder apply. For terms used, but not defined herein, the definitions as given in Chap. 1 apply.

01 An air-cushion vehicle is a craft such that the whole or a significant part of its weight can be supported, whether at rest or in motion, by a continuously generated cushion of air dependent for its effectiveness on the proximity of the surface over which the craft operates.

02 A hydrofoil boat is a craft which is supported above the water surface in normal operating conditions by hydrodynamic forces generated on foils.

03 A side wall craft is an air-cushion vehicle whose waits extending along the sides are permanently immersed hard structures.

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04. A container vessel means a vessel which is used primarily for the transport of marine containers.

CHAPTER 2

Regulation 1

Stability booklet

1. Stability data and associated plans should be drawn up in the working language of the vessel and any other language the Administration may require. All translations of the stability booklet should be approved.

2. Each vessel should be provided with a stability booklet, approved by the Administration, which contains sufficient information to enable the master to operate the vessel in compliance with the applicable requirements contained in this Annexure. The Administration may have additional requirements. The stability booklet may include information on longitudinal strength, where required. This Annexure addresses only the stability-related contents of the booklet.

3. The format of the stability booklet and the information included will vary dependent on the vessel type and operation. In developing the stability booklet, consideration should be given to including the following information:

01. A general description of the vessel;

02. Instructions on the use of the booklet;

03. General arrangement plans showing watertight compartments, closures, vents, downflooding angles, permanent ballast, allowable deck loadings and freeboard diagrams;

04. Hydrostatic curves or tables and cross curves of stability calculated on a free-trimming basis, for the ranges of displacement and trim anticipated in normal operating conditions;

05. Capacity plan or tables showing capacities and centres of gravity for each cargo stowage space;

06. Tank sounding tables showing capacities, centres of gravity, and free surface data for each tank;

07. Information on loading restrictions, such as maximum KG or minimum GM curve or table that can be used to determine compliance with the applicable stability criteria;

08. Standard operating conditions and examples for developing other acceptable loading conditions using the information contained in the stability booklet .

09. A brief description of the stability calculations done including assumptions;

10. General precautions for preventing unintentional flooding;

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11. Information concerning the use of any special cross-flooding fittings with descriptions of damage conditions which may require cross-flooding;

12. Any other necessary guidance for the safe operation of the vessel under normal and emergency conditions;

13. A table of contents and index for each booklet;

14. Inclining test report for the vessel, or:

01. Where the stability data is based on a sister vessel, the inclining test report of that sister vessel along with the lightship measurement report for the vessel in question; or

02 Where lightship particulars are determined by other methods than from inclining of the vessel or its sister, a summary of the method used to determine those particulars;

15. Recommendation for determination of vessel's stability by means of an in-service inclining test.

16. If permanent ballast is used, its location and weight should be noted in the vessel's stability booklet, it should be located such that it does not shift during the normal operation of the vessel. Permanent ballast should not be removed from the vessel or relocated within the vessel without the approval of the Administration.

4. As an alternative to the stability booklet mentioned, a simplified booklet in an approved form containing sufficient information to enable the master to operate the vessel in compliance with the applicable provisions of the Annexure as may be provided at the discretion of the Administration concerned.

Regulation - 2

General precautions against capsizing

1. Compliance with the stability criteria does not ensure immunity against capsizing, regardless of the circumstances, or absolve the master from his responsibilities. Masters should therefore exercise prudence and good seamanship having regard to the season of the year, weather forecasts and the navigational zone and should take the appropriate action as to speed and course warranted by the prevailing circumstances.

2. Care should be taken that the cargo allocated to the vessel is capable of being stowed so that compliance with the criteria can be achieved. If necessary, the amount should be limited to the extent that ballast weight may be required.

3. Before a voyage commences, care should be taken to ensure that the cargo and sizeable pieces of equipment have been properly stowed or lashed so as to minimize

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the possibility of both longitudinal and lateral shifting, while at sea, under the effect of acceleration caused by rolling and pitching.

4 A vessel, when engaged in towing operations, should possess an adequate reserve of stability to withstand the anticipated heeling moment arising from the tow line without dangering the towing vessel. Deck cargo on board the towing vessel should be so positioned as not to endanger the safe working of the crew on deck or impede the proper functioning of the towing equipment and be properly secured. Towline arrangements should include towing springs and a method of quick release of the tow.

5 The number of partially filled or slack tanks should be kept to a minimum because of their adverse effect on stability.

6 The stability criteria contained in chapter 3 set minimum values, but no maximum values are recommended. It is advisable to avoid excessive values of metacentric height, since these might lead to acceleration forces which could be prejudicial to the vessel, its complement, its equipment and to safe carriage of the cargo. Slack tanks may, in exceptional cases, be used as a means of reducing excessive values of metacentric height. In such cases, due consideration should be given to sloshing effects.

7 Regard should be paid to the possible adverse effects on stability where certain bulk cargoes are carried.

Regulation 3

Operational procedures before and in heavy weather.

1. All doorways and other openings through which water can enter into the hull or deckhouses, forecastle, etc., should be suitably closed in adverse weather conditions and accordingly all appliances for this purpose should be maintained on board and in good condition.

2. Weathertight and watertight hatches, doors, etc., should be kept closed during navigation, except when necessarily opened for the working of the vessel and should always be ready for immediate closure and be clearly marked to indicate that these fittings are to be kept closed except for access. Hatch cover and flush deck scuttles in fishing vessels should be kept properly secured when not in use during fishing operations. All portable deadlights should, be maintained in good condition and securely closed in bad weather.

3. Any closing devices provided for vent pipes to fuel tanks should be secured in bad weather.

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4. In all conditions of loading necessary care should be taken to maintain the minimum freeboard.

Chapter 3

General Intact Stability Criteria for All Vessels

1. The following general criteria are recommended for passenger and cargo vessels.

- The metacentric height GM should not be less than 0.15 m, for all the vessels.
- Passenger vessels, with 2/3 rd of passengers crowded on one side on the upper most deck, the angle of heel should not exceed 10° and the vessel should have a positive metacentric height.

For the purpose of this Rule the weight of the passenger is to be taken as 65kgs

- The freeboard in case of passenger vessels, should not be less than 760 mm in all conditions of loading.
- The maximum angle of heel of all self propelled vessels during turning at service speed fully loaded on account of turning shall not exceed 10°.

2. Provisions should be made for a safe margin of stability at all stages of the voyage, regard being given to additions of weight, such as those due to absorption of water and to losses of weight such as those due to consumption of fuel and stores.

3. For vessels carrying oil-based pollutants in bulk, the Administration should be satisfied that the criteria given in 3.1 is maintained during all loading and ballasting operations.

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Chapter 4

Regulation 1

Severe wind and rolling criterion (weather criterion)

1. This criterion supplements the stability criteria given in Chapter 3.

2. Weather criterion:

a)The ability of a vessel to withstand the combined effects of beam wind and rolling should be demonstrated for each standard condition of loading, with reference to the figure as follows:

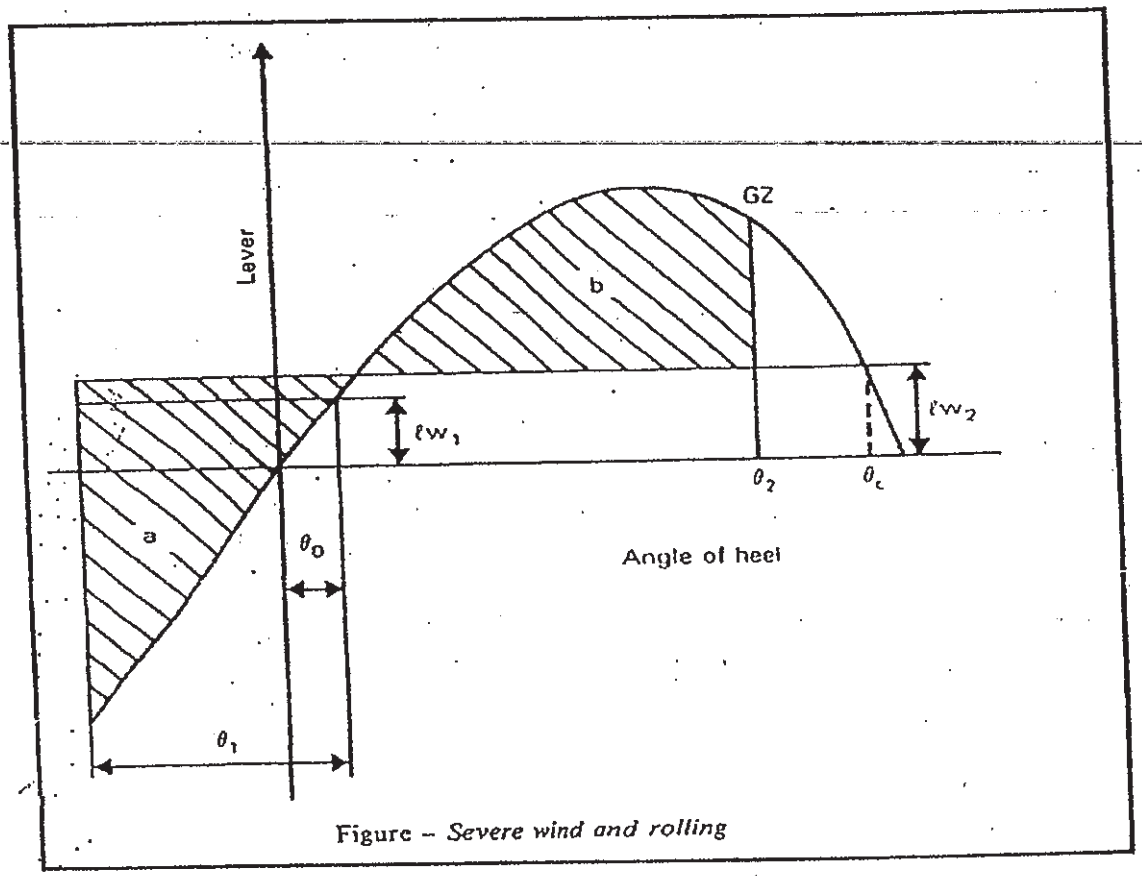


Figure – *Severe wind and rolling*

01. The vessel is subjected to a steady wind pressure acting perpendicular to the vessel's centerline which results in a steady wind heeling lever (1w1).

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02 From the resultant angle of equilibrium (θo), the vessel is assumed to roll owing to wave action to an angle of roll (θ1) to windward. Attention should be paid to the effect of steady wind so that excessive resultant angles of heel are avoided;

03 The vessel is then subjected to a gust wind pressure which results in a gust wind heeling lever (1w2);

04 Under these circumstances, area "b" should be equal to or greater than area "a";

05 Free surface effects should be accounted for in the standard conditions of loading

The angles in the above figure are defined as follows:

θo = angle of heel under action of steady wind

θ1 = angle of roll to windward due to wave action

θ2 = angle of down flooding (qf) or 50° or qc, whichever is less,

where:

θf = angle of heel at which openings in the hull, superstructures or deckhouses which cannot be closed weathertight immerse. In applying this criterion, small openings through which progressive ' flooding cannot take place need not be considered as open.

θc = angle of second intercept between wind heeling lever lw2 and GZ curves.

b) The wind heeling levers lw1and lw2 referred above are constant values at all angles of inclination and should be calculated as follows:

$$lw1 = (P.A.Z / 1000gD) (m) \quad \text{and}$$

$$lw2 = 1.5\ lw1\ (m)$$

where:

P = wind pressure of 504 Pa. The value of P used for vessels in restricted service may be reduced subject to the approval of the Administration;

A = projected lateral area of the portion of the vessel and deck cargo above the waterline (m^2)

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Z = vertical distance from the centre of A to the centre of the underwater lateral area or approximately to a point at one half the mean draught (m);

D = displacement (t)

g = gravitational acceleration of 9.81 m/s2

c) The angle of roll (q1) referred to should be calculated as follows:

q1 = 109k.X1.X2(r.s) 1/2 (degrees)

where:

X1 = factor as shown in table 1

X2 = factor as shown in table 2

k = factor as follows:

k = 1.0 for round-bilged vessel having no bilge or bar keels

k = 0.7 for a vessel having sharp bilges

k = as shown in table 3 for a vessel having bilge keels, a bar keel or both

r = 0.73 ± 0.6 OG/d

with:

OG = distance between the centre of gravity and the waterline (m) (+ if centre of gravity is above the waterline, - if it is below)

d = mean moulded draught of the vessel (m)

s = factor as shown in table 4.

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Table 1

Values of factor X1

B / d	X1
2.4	1.00
2.5	0.98
2.6	0.96
2.7	0.95
2.8	0.93
2.9	0.91
3.0	0.90
3.1	0.88
3.2	0.86
3.3	0.84
3.4	0.82
3.5	0.80

Table 2

Values of Factor X2

CB	X2
< 0.45	0.75
0.50	0.82
0.55	0.85
0.60	0.95
0.65	0.97
> 0.70	1.00

Table 3

Values of factor k

(Ak.100 / LB)	k
0	1.0
1.0	0.98
1.5	0.95
2.0	0.88
2.5	0.79
3.0	0.74
3.5	0.72
4.0	0.70

Table 4

Values of Factor S

T	S
6	0.100
7	0.098
8	0.93
12	0.065
14	0.053
16	0.044
18	0.038
20	0.035

(Intermediate values in table 1 – 4 should be obtained by linear interpolation).

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Rolling period T=(2C B / (GM) 1 / 2) (seconds)

where:

C = 0.373 + 0.023 (B/d) - 0.043 (L / 100).

The symbols in the above tables and formula for the rolling period are defined as follows:

L = length of the vessel at waterline (m)

B = moulded breadth of the vessel (m)

d = mean moulded draught of the vessel (m)

CB = block coefficient

Ak = total overall area of bilge keels, or area of the lateral projection of the bar keel, or Sum of these areas (m2)

GM = metacentric height corrected for free surface effect (m).

Regulation 2

Standard loading conditions to be examined

1 Loading conditions: The standard loading conditions referred to in the text are as follows:

01. For a passenger vessel:

01. Vessel in the fully loaded departure condition with full stores and fuel and with the full number of passengers with their luggage;

02. Vessel in the fully loaded arrival condition, with full number of passengers and their luggage but with only 10% stores and fuel remaining;

03. Vessel without cargo, but with full stores and fuel and the full number of passengers and their luggage;

04. Vessel in the same condition as at .03 above with only 10% stores and fuel remaining.

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02 For a cargo vessel:

01 Vessel in the fully loaded departure condition, with cargo homogeneously distributed throughout all cargo spaces and with full stores and fuel;

02 Vessel in the fully loaded arrival condition with cargo homogeneously distributed throughout all cargo spaces and with 10% stores and fuel remaining;

03 Vessel in ballast in the departure condition, without cargo but with full stores and fuel;

04 Vessel in ballast in the arrival condition, without cargo and with 10% stores and fuel remaining.

03 For a cargo vessel intended to carry deck cargoes:

01 Vessel in the fully loaded departure condition with cargo homogeneously distributed in the holds and with cargo specified in extension and mass on deck, with full stores and fuel;

02 Vessel in the fully loaded arrival condition with cargo homogeneously distributed in holds and with a cargo specified in extension and mass on deck, with 10% stores and fuel.

2 A mass of 65 kg should be assumed for each passenger except that this value may be reduced to not less than 60 kg where this can be justified. In addition, the mass and distribution of the luggage should be determined by the Administration.

3 The height of the centre of gravity for passengers should be assumed equal to:

- 1.0 m above deck level for passengers standing upright. Account may be taken, if necessary, of camber and sheer of deck;

- 0.30 m above the seat in respect of seated passengers.

4 Passengers and luggage should be considered to be in the spaces normally at their disposal.

Passengers without luggage should be considered as distributed to produce the most unfavourable combination of passenger heeling moment and / or initial metacentric height, which may be obtained in practice, when assessing compliance with the

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Criteria given in chapter 3. In this connection, it is anticipated that value higher than four person per square – metre will not be necessary.

Chapter 5

Sub Division and Number of bulkheads

1. The requirements of the bulkheads are as follows :

a) **Cargo vessels :** The number and allocation of bulkheads are to be as per Annexure 1.

b) **Passanger vessels :** The number of bulkheads are to be as follows :

Length	Machinery Aft	Machinery elsewhere
15 < L > 30	3	3
L > 30	3	4

Location of collision bulkhead is to within the limits specified in Annexure 1.

c) Pontons : Minimum number of bulkheads is to be based on the damaged stability calculations to the satisfaction of the Administration.

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ANNEXTURE - III

(see sub-rule (9) of rule 19)

Determination of Lightship Displacement and Centres of Gravity and Guidance information for conducting Inclining Experiment

Chapter 1
Regulation - 1
Application

1 Every vessel, passenger or cargo should be inclined upon its completion and the elements of its stability determined.

2 Where any alterations are made to a vessel so as to materially affect the stability, the vessel should be re-inclined.

3 At periodic intervals not exceeding (we years, a lightweight survey should be carried out on all passenger vessels to verify any changes in lightship displacement and longitudinal centre of gravity.
The vessel should be re-inclined whenever, in comparison with the approved stability information, deviation from the lightship displacement exceeding 2% or a deviation of the longitudinal centre of gravity exceeding 1% of L is found, or anticipated.

4 The Administration may allow the inclining test of an individual vessel to be dispensed with provided basic stability data are available from the inclining test of a sister vessel and it is shown to the satisfaction of the Administration that reliable stability information for the exempted vessel can be obtained from such basic data.

5 The Administration may allow the inclining test of an individual vessel or class of vessels especially designed for the carriage of liquids or ore in bulk to be dispensed with when reference to existing data for similar vessels clearly indicates that due to the vessel's proportions and arrangements more than sufficient metacentric height will be available in all probable loading conditions.

Chapter 2
Definitions

For the purpose of this Annexure, unless expressly provided otherwise:

1 Certification of the test weights is the verification of the weight marked on a test weight. Test weights should be certified using a certificated scale. The weighting should be performed close enough in time to the inclining test to ensure the measured weight is accurate.

2 Draught is the vertical distance from the moulded baseline to the waterline.

3 The inclining test involves moving a series of known weights, normally in the transverse direction, and
Information and applying basic naval architecture principles, the vessers vertical centre of gravity (VCG) is determined.

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4. Lightship condition is a vessel complete in all respects, but without consumables, stores, cargo, crew and effects, and without any liquids on board except that machinery and piping fluids, such as lubricants and hydraulics, are at operating levels.

5. A lightweight survey involves taking an audit of all items which should be added, or relocated on the vessel at the time of the inclining test so that the observed condition of the vessel can be adjusted to the lightship condition. The weight, longitudinal, transverse and vertical location of each item should be accurately determined and recorded. Using this information, the static waterline of the vessel at the time of the inclining test as determined from measuring the freeboard or verified draught marks of the vessel, the vessel's hydrostatic data, and the sea water density, the lightship displacement and longitudinal centre of gravity (LCG) can be obtained. The transverse centre of gravity (TCG) may also be determined for vessels which are asymmetrical about the centreline or whose internal arrangement or outfitting is such that an inherent list may develop from off-centre weight.

Chapter - 3
Regulation - 1
Preparations for the Inclining Test

1 **Notification of the Administration**
Written notification of the inclining test should be sent to the Administration as it requires or in due time before the test. An Administration representative should be present to witness the inclining test and the test results are submitted for review.

The responsibility for making preparations, conducting the inclining test and lightweight survey, recording the data, and catenating the results rests with the shipyard, owner or naval architect. While compliance with the procedures outlined herein will facilitate an expeditious and accurate inclining test, it is recognized that alternative procedures or arrangements may be equally efficient. However, to minimize risk of delay, it is recommended that all such variances be submitted to the Administration for review prior to the inclining test.

01 **Details of notification**
Written notification should provide the following information as the Administration may require:

1 identification of the vessel by name and shipyard hull number, if applicable;
2 date, time, and location of the test;
3 inclining weight data:
 1 type;
 2 amount (number of units and weight of each);
 3 certification;
 4 method of handling (i.e. sliding rail or crane);
 5 anticipated maximum angle of heel to each side;

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4 **measuring devices:**
- 1 pendulums - approximate location and length;
- 2 U-tubes - approximate location and distance between legs;
- 3 inclinometers - location and details of approvals and calibrations.

5 approximate trim;
6 condition of tanks;
7 estimated weights to deduct, to complete, and to relocate in order to place the vessel in its true lightship condition;
8 detailed description of any computer software to be used to aid in calculations during the, inclining test;
9 name and phone number of the person responsible for conducting the inclining test.

Regulation 2
General condition of the vessel

1 A vessel should be as complete as possible at the time of the inclining test. The test should be scheduled to minimize the disruption in the vessel's delivery date or its operational commitments.

2 The amount and type of work left to be completed (weights to be added) affect the accuracy of the lightship characteristics, so good judgment should be used. If the weight or centre of gravity of an item to be added cannot be determined with confidence, it is best to conduct the inclining test after the item is added.

3 Temporary material, tool boxes, staging, sand, debris, etc., on board should be reduced to absolute minimum before the inclining test. Excess crew or personnel not directly involved in the inclining test should be removed from on board the vessel before the test.

4 Decks should be free of water. Water trapped on deck may shift and pocket in a fashion similar to liquids in a tank. Any rain, snow or ice accumulated on the vessel should be removed prior to the test.

5 The anticipated liquid loading for the test should be included in the planning for the test. Preferably, all tanks should be empty and clean, or completely full. The number of stack tanks should be kept to an absolute minimum. The viscosity of the fluid, the depth of the fluid and the shape of the tank should be such that the free surface effect can be accurately determined.

6 The "vessel should be moored in a quiet, sheltered area free from extraneous forces such as propeller wash from passing vessels, or sudden discharges from shore side pumps. The tide conditions and the trim of the vessel during the test should be considered. Prior to die test, the depth of water should be measured and recorded in as many locations as are necessary to ensure that the vessel will not contact the bottom. The specific gravity of water should be accurately recorded. The vessel should be moored in a manner to allow unrestricted heeling. The access ramps should be removed. Power lines, hoses; etc., connected to shore should be at a minimum, and kept slack at all times.

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7 The vessel should be as upright as possible and have sufficient draught so that any abrupt changes in the water plane will be avoided as the vessel is inclined from side to side. A deviation from design trim of up to 1% of L is normally acceptable when using hydrostatic data calculated at design trim. Otherwise, the hydrostatic data should be calculated for the actual trim. Caution should be exercised when applying the "1% rule of thumb" to ensure that excessive error, as would result from a significant change in the water plane area during heeling, is not introduced into the stability calculations. With inclining weights in the initial position, up to one-half degree of list is acceptable.

8 The total weight used should be sufficient to provide a minimum inclination of one degree and a maximum of four degrees of heel to each side. The Administration may, however, accept a smaller inclination angle for large vessels. Test weights should be compact and of such a configuration that the vertical centre of gravity of the weights can be accurately determined. Each weight should be marked with an Identification number and its weight Re-certification of the test weights should be carried out prior to the inclining. A crane of sufficient capacity and reach, or some other means, should be available during the inclining test to shift weights on the deck in an expeditious and safe manner. Water ballast transfer may be carried out, when it is impractical, to incline using solid weights, if acceptable to the Administration.

9 Two pendulums (minimum) should be used to allow identification of bad readings at any one pendulum station. They should each be located in an area protected from the wind. The pendulums should be long enough to give a measured deflection, to each side of upright, of at least 5 cm. To ensure recordings from individual instruments are kept separate, it is suggested that the pendulums be physically located as far apart as practical. One or more pendulums may be substituted by other measuring devices (U-tubes or inclinometers) at the discretion of the Administration.

10 Efficient two-way communications should be provided between central control and the weight handlers and between centre control and each pendulum station. One person at a central control station should have complete control over all personnel involved in the test

Regulation 3

Plans required

1 The person in charge of the inclining test should have available a copy of the following plans at the time of the inclining test:

01 lines plan;
02 hydrostatic curves or hydrostatic data;
03 general arrangement plan of decks, holds, inner bottoms, etc.;
04 capacity plan showing capacities and vertical and longitudinal centres of gravity of cargo spaces, tanks, etc. When ballast water is used as inclining weights, the transverse and vertical centres of gravity for the applicable tanks, for each angle of inclination, must be available;
05 tank sounding tables;
06 draught mark locations; and
07 docking drawing with keel profile and draught mark corrections (if available).

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Regulation - 4
Test procedure

1 Procedures followed in conducting the inclining test and lightweight survey should be in accordance with the recommendations laid out in Chapter 4.

1 Freeboard/draught readings should be taken to establish the position of the waterline in order-to determine the displacement of the vessel at the time of the inclining test. It is recommended that at least five freeboard readings, approximately equally spaced, be taken on each side of the vessel or that all draught marks (forward, midship and aft) be read on each side of the vessel. Draught/freeboard readings should be read immediately before or immediately after the inclining test.

2 The standard test employs eight distinct weight movements. Movement No.8, a recheck of the zero point, may be omitted if a straight line plot is achieved after Movement No.7. If a straight line plot is achieved after the initial zero and six weight movements, the inclining test is complete and the second check at zero may be omitted. If a straight line plot is not achieved, those weight movements that did not yield acceptable plotted points should be repeated or explained.

2 A copy of the inclining data should be forwarded to the Administration along with the calculated results of the inclining test in an acceptable report format, if required.

3 All calculations performed during the inclining test and in preparation of an inclining test report may be carried out by a suitable computer program. Output generated by such a program may be used for presentation of all or partial data and calculations included in the test report if it is clear, concise, well documented, and generally consistent in form and content with Administration requirements

Regulation 5

Stability test for pontoons

1 An inclining experiment is not normally required for a pontoon, provided a conservative value of the lightship vertical centre of gravity (KG) is assumed for the stability calculations. The KG can be assumed at the level of the main deck although it is recognized that a lesser value could be acceptable if fully documented. The lightship displacement and longitudinal centre of gravity should be determined by calculation based on draught and density readings.

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Chapter 4
DETAILED GUIDELINES FOR CONDUCT OF INCLUDING TEST
Regulation 1
INTRODUCTION

1 This Chapter contains important detailed procedures for conducting an inclining test in order to ensure that valid results are obtained with maximum precision at a minimal cost to owners, shipyards and the Administration. A complete understanding of the correct procedures used to perform an inclining test is imperative in order to ensure that the test is conducted properly and so that results can be examined for accuracy as the inclining experiment is conducted.

2 Free surface and tankage

01 If there are liquids on board the vessel when it is inclined, whether in the bilges or in the tanks, they will shift to the low side when the vessel heels. This shift of liquids will exaggerate the heel of the vessel. Unless the exact weight and distance of liquid shifted can be precisely calculated, the metacentric height (GM) calculated from the inclining test will be in error. Free surface should be minimized by emptying the tanks completely and making sure all bilges are dry; or by completely filling the tanks so that no shift of liquid is possible. The latter method is not the optimum because air pockets are difficult to remove from between structural members of a tank, and the weight and centre of the liquid in a full tank should be accurately determined in order to adjust the lightship values accordingly. When tanks must be left slack, it is desirable that the sides of the tanks be parallel vertical planes and the tanks be regular in shape, (i.e. rectangular, trapezoidal, etc.) when viewed from above, so that the free surface moment of the liquid can be accurately determined.

Free surface correction is independent of the height of the tank in the vessel, location of the tank, and direction of heel. As the width of the tank increases, the value of free surface moment increases by the third power. The distance available for the liquid to shift is the predominant factor. This is why even the smallest amount of liquid in the bottom of a wide tank or bilge is normally unacceptable and should be removed prior to the inclining experiment. Insignificant amounts of liquids in V-shaped tanks or voids (e.g. a chain locker in the bow), where the potential shift is negligible, may remain if removal of the liquid would be difficult or would cause extensive delays.

When ballast water is used as inclining weight, the actual transverse and vertical movements of the liquid should be calculated taking into account the change of heel of the vessel. Free surface corrections as defined in this paragraph should not apply to the inclining tanks.

02 Pressed up tanks - "Pressed up" means completely full with no voids caused by trim or inadequate venting. Anything less than 100% full, for example the 98% condition regarded as full for operational purposes, is not acceptable. Preferably, the vessel should be rolled from side to side to eliminate entrapped air before taking the final sounding. Special care should be taken when pressing fuel oil tanks to prevent accidental pollution.

03 Empty tanks - It is generally not sufficient to simply pump tanks until suction is lost. Enter the tank after pumping to determine if final stripping with portable pumps or by hand is necessary.

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The exceptions are very narrow tanks or tanks where there is a sharp deadrise, since free surface would be negligible. Since all empty tanks should be inspected, all manholes should be open and the tanks well ventilated and certified as safe for entry. A safe testing device should be on hand to test for sufficient oxygen and minimum toxic levels. A certified marine chemist's certificate certifying that all fuel oil and chemical tanks are safe for human entry should be available, if necessary.

2 Mooring arrangements

The importance of good mooring arrangements cannot be over-emphasized. The arrangement selections will be dependent upon many factors. Among the most important are depth of water, wind and current effects. Whenever possible, the vessel should be moored in a quiet, sheltered area free from extraneous forces such as propeller wash from passing vessels, or sudden discharges from shore side pumps. The depth of water under the hull should be sufficient to ensure that the hull will be entirely free of the bottom. The tide conditions and the trim of the vessel during the test should be considered. Prior to the test, the depth of water should be measured and recorded in as many locations as necessary to ensure the vessel will not contact the bottom. If marginal, the test should be conducted during high tide or the vessel moved to deeper water.

01 The mooring arrangement should ensure that the vessel will be free to list without restraint for a sufficient period of time to allow a satisfactory reading of the heeling angle, due to each weight shift, to be recorded.

02 The vessel should be held by lines at the bow and the stem, attached to bollards and/or cleats on the deck. If suitable restraint of the vessel cannot be achieved using deck fittings, then temporary padeyes should be attached as dose as possible to the centreline of the vessel and as near the % waterline as practical. Where the vessel can be moored to one side only, it is good practice to supplement the bow and stem lines with two spring lines in order to maintain positive control of the vessel. The leads of the spring lines should be as long as practicable. Cylindrical camels should be provided between the vessel and the dock. All lines should be slack, with the vessel free of the pier and camels, when taking readings.

01 If the vessel is held off the pier by the combined effect of the wind and current, a superimposed heeling moment will act on the vessel throughout the test. For steady conditions this will not affect the results. Gusty wind or uniformly varying wind and/or current will cause these superimposed heeling moments to change, which may require additional test points to obtain a valid test The need for additional test points can be determined by plotting test points as they are obtained.

02 If the vessel is pressed against the fenders by wind and/or current, all lines should be slack. The cylindrical camels will prevent binding but there will be an additional superimposed heeling moment due to the vessel bearing against the camels. This condition should be avoided where possible but, when used, consideration should be given to pulling the vessel free of the dock and camels and letting the vessel drift as readings are taken.

03 Another acceptable arrangement is where the combined wind and current are such that the vessel may be. controlled by only one line at either the bow or the stem. In this case, the control line should be led from on or near me centre line of the vessel with all lines but the control line slack, the vessel is free to veer with the wind and/or current as readings are taken. This can sometimes be troublesome because varying wind and/or current can cause distortion of the plot.

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3 The mooring arrangement should be submitted to the approval authority for review prior to the test.

4 If a floating crane is used for handling inclining weights, it should not be moored to the vessel.

3. Test weights:

01 Weights, such as porous concrete, that can absorb significant amounts of moisture, should only be used if they are weighed just prior to the inclining test or if recent weight certificates are presented. Each weight should be marked with an identification number and its weight. For small vessels, drums completely filled with water may be used. Drums should normally be full and capped to allow accurate weight control. In such cases, the weight of the drums should be verified in the presence of the Administration representative using a recently calibrated scale.

02 Precautions should be taken to ensure that the decks are' not overloaded during weight movements. If deck strength is questionable then a structural analysis should be performed to determine if existing framing can support the weight.

03 Generally, the test weights should be positioned as far outboard as possible on the upper deck. The test weights should be on board and in place prior to the scheduled time of the inclining test.

4 Pendulums

01 The pendulums should be long enough to give a measured deflection, to each side of upright, of at least 5 centimetres. Generally, this will require a pendulum length of at least 3 metres. It is recommended that pendulum lengths of 4-6 metres be used. Usually, the longer the pendulum the greater the accuracy of the test; however, if excessively long pendulums are used on a tender vessel the pendulums may not settle down and the accuracy of the pendulums would then be questionable. On large vessels with high GM, pendulum lengths in excess of the length recommended above may be required to obtain the minimum deflection. In such cases should be filled with high viscosity oil. If the pendulums are of different lengths, the possibility of collusion between station recorders is avoided.

02 On smaller vessels, where there is insufficient headroom to hang long pendulums, the centimetres deflection should be obtained by increasing the test weight so as to increase the heel. On most vessels the typical inclination is between one and four degrees.

03 The pendulum wire should be piano wire or other monofilament material. The top connection of the pendulum should afford unrestricted rotation of the pivot point. An example is that of washer test washer with the pendulum wire attached suspended from a nail.

04 A trough filled with a liquid should be provided to dampen oscillations of the pendulum after each weight movement. It should be deep enough to prevent the pendulum weight from touching the bottom. The use of a winged plumb bob at the end of the pendulum wire can also help to dampen the pendulum oscillations in the liquid.

05 The battens should be smooth, light-coloured wood, 1 to 2 centimetres thick, and should be securely fixed in position so that an inadvertent contact will not cause them to shift. The batten should be aligned close to the pendulum wire but not in contact with it.

06 The pendulums may be placed in any location on the vessel, longitudinally and transversely. The pendulums should be in place prior to the scheduled time of the inclining test.

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07 It is recommended that inclinometers or other measuring devices only be used in conjunction with at least one pendulum. The Administration may approve an alternative arrangement when this is found impractical.

Regulation 2

EQUIPMENT REQUIRED

1 Besides the physical equipment necessary such as the inclining weights, pendulums, small boat, etc., the following are necessary and should be provided by or made available to the person in charge of the inclining:

1. Engineering scales for measuring pendulum deflections (rules should be subdivided sufficiently to achieve the desired accuracy);
2. Sharp pencils for marking pendulum deflections;
3. Chalk for marking the various positions of the inclining weights;
4. A sufficiently long measuring tape for measuring the movement of the weights and locating different items on board;
5. A sufficiently long sounding tape for sounding tanks and taking freeboard readings;
6. One or more well maintained specific gravity hydrometers with range sufficient to cover 0.999 to 1.030, to measure the specific gravity of the water in which the vessel is floating (a hydrometer for measuring specific gravity of less than 1.000 may be needed in some locations);
7. Other hydrometers as necessary to measure the specific gravity of any liquids on board;
8. Graph paper to plot inclining moments versus tangents;
9. A straight edge to draw the measured waterline on the lines drawing;
10. A pad of paper to record data;
11. An explosion proof testing device to check for sufficient oxygen and absence of lethal gases in tanks and other closed spaces such as voids and cofferdams;
12. A thermometer; and
13. Draught tubes (if necessary).

Regulation 3

TEST PROCEDURE

1 The inclining experiment, the freeboard/draught readings and the survey may be conducted in any order and still achieve the same results, if the person conducting the inclining test is confident

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that the survey will show that the vessel is in an acceptable condition and there is the possibility of the weather becoming unfavourable, then it is suggested that the inclining be performed first and the survey last. If the person conducting the test is doubtful that the vessel is complete enough for the test, it is recommended that the survey be performed first since this could invalidate the entire test, regardless of the weather conditions. It is very important that all weights, the number of people on board, etc., remain constant throughout the test.

2 Initial walk through and survey

The person responsible for conducting the inclining test should arrive on board the vessel well in advance of the scheduled time of the test to ensure that the vessel is properly prepared for he test. If the vessel to be inclined is large, a preliminary walk through may need to be one the day preceding the actual incline. To ensure the safety of personnel conducting the walk through, and to improve the documentation of surveyed weights and deficiencies, at least two persons should make the initial walk through. Things to check include: all compartments are open, clean, and dry, tanks are well ventilated and gas free, movable or suspended items are secured and their position documented, pendulums are in place, weights are on board and in place, a crane or other method for moving weights is available, and the necessary plans and equipment are available. Before beginning the inclining test, the person conducting the test should:

01 Consider the weather conditions. The combined adverse effect of wind and current may result in difficulties or even an invalid test due to the following:

1.1 Inability to accurately record freeboards and draughts;

1.2 Excessive or irregular oscillations of the pendulums;

1.3 Variation in unavoidable superimposed heeling moments.

In some instances, unless conditions can be sufficiently improved by moving the vessel to a better location/it may be necessary to delay or postpone the lest. Any significant quantities of rain water should be removed from the vessel before the test.

02 Make a quick overall survey of the vessel to make sure the vessel is complete enough to conduct the test and to ensure that all equipment is in place. An estimate of items which will be outstanding at the time of the inclining test should be included as part of any test procedure submitted to the Administration. This is required so that the Administration representative can advised the shipyard/naval architect if in their opinion the vessel will not be sufficiently complete to conduct the incline and that it should be rescheduled. If the condition of the vessel is not accurately depicted in the test procedure and at the time of the inclining test the Administration representative considers that the vessel is in such condition that an accurate incline cannot be conducted, the representative may refuse to accept the incline arid require that the incline be conducted at a later date;

03 Enter all empty tanks after it is determined that they are well ventilated and gas free to ensure that they are dry and free of debris. Ensure that any pressed up tanks are indeed full and free of air pockets. The anticipated liquid loading for the incline should be included in the procedure required to be submitted to the Administration;

04. Survey the entire vessel to identity all items which need to be added to the vessel, removed from the vessel, or relocated on the vessel to bring the vessel to the lightship condition. Each item should be clearly identified by weight and vertical and longitudinal location. If necessary, the transverse location should also be recorded. The inclining weights, the pendulums, any temporary equipment, dunnage and the people on board during the inclining test are all among the weights to

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be removed to obtain the lightship condition. The person calculating the lightship characteristics from the data gathered during the incline and survey and/or the person reviewing the inclining test may not have been present during the test and should be able to determine the exact location of the items from the data recorded and the vessel's drawings. Any tanks containing liquids should be . accurately sounded and the soundings recorded;

4.1 It is recognized that the weight of some items on board, or that are to be added, may have to be estimated. If this is necessary, it is in the best interest of safety to be on the safe side when estimating, so the following rules of thumb should be followed:

4.1.1 When estimating weights to be added:
Estimate high for items to be added high in the vessel.
Estimate low for items to be added low in the vessel.

4.1.2 When estimating weights to be removed:
- Estimate low for items to be removed from high in the vessel.
- Estimate high for items to be removed from low in the vessel.

4.1.3 When estimating weights to be relocated:
- Estimate high for items to be relocated to a higher point in the vessel.
- Estimate low for items to be relocated to a lower point in the vessel.

3 **Freeboard/draught readings**

1. Freeboard/draught readings should be taken to establish the position of the waterline in order to determine the displacement of the vessel at the time of the inclining test It is recommended that at least five freeboard readings, approximately equally spaced, be taken on each side of the vessel or that all draught marks (forward, mishap, and aft) be read on each side of the vessel. Draught mark readings should be taken to assist in determining the waterline defined by freeboard readings, or to verify the vertical location of draught marks on vessels where their location has not been confirmed. The locations for each freeboard reading should be clearly marked. The longitudinal location along the ";vessel should be accurately determined and recorded since the (moulded) depth at each point will be obtained from the vessel's lines. All freeboard measurements should include a reference note clarifying the inclusion of the coating in the measurement and the coaming height.

2 Draught and freeboard readings should be read immediately before or immediately after the inclining test. Weights should be on board and in place and all personnel who will be on board during the test including those who will be stationed to read the pendulums, should be on board and in location during these readings. This is particularly important on small vessels. If readings are made after the test, the vessel should be maintained in the same condition as during the test. For small vessels, it may be necessary to counterbalance the list and trim effects of the freeboard measuring party. When possible, readings should be taken from a small boat.

3 A small boat should be available to aid in the taking of freeboard and draught mark readings. It should have low freeboard to permit accurate observation of the readings.

4 The specific gravity of the flotation water should be determined at this time. Samples should be taken from a sufficient depth of the water to ensure a true representation of the flotation water and not merely surface water, which could contain fresh water from run off of rain. A hydrometer should be placed in a water sample and the specific gravity read and recorded.

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5. A draught mark reading may be substituted for a given freeboard reading at that longitudinal location if the height and location of the mark has been verified to be accurate by a keel survey while the vessel was in dry dock.

6. The dimensions given on a vessel's lines drawing are normally moulded dimensions. In the case of depth, this means the distance from the inside of the bottom shell to the inside of the deck plate. In order to plot the vessel's waterline on the lines drawing, the freeboard readings should be converted to moulded draughts. Similarly, the draught mark readings should be corrected from extreme (bottom of keel) to moulded (top of keel) before plotting, Any discrepancy between the freeboard/draught readings should be resolved.

7. The mean draught (average of port and starboard reading) should be calculated for each of the locations where freeboard/draught readings are taken and plotted the vessel's lines drawing or outboard profile to ensure that all readings, are consistent and. together define the correct waterline. The resulting plot should yield either a straight line or a waterline which is either hogged or sagged. If inconsistent readings are obtained, the freeboards/draughts should be retaken.

4. The incline

1. Prior to any weight movements the following should be checked:

01 The mooring arrangement should be checked to ensure that the vessel is floating freely. (This should be done just prior to each reading of the pendulums).

02 The pendulums should be measured and their lengths recorded. The pendulums should be aligned so that when the vessel heels, the wire will be close enough to the batten to ensure an accurate reading but will not come into contact with the batten.

03 The initial position of the weights is marked on the deck. This can be done by tracing the outline of the weightsbn the deck.

04 The communications arrangement is adequate. .

05 All personnel are in place.

2. A plot should be run during the test to ensure that acceptable data is being obtained. Typically, the abscissa of the plot will be heeling moment (weight times distance) and the ordinate will be the tangent of the heel angle (deflection of the pendulum divided by the length of the pendulum). This plotted line does not necessarily pass through the origin or any other particular point for no single point is more significant than any other point. A linear regression analysis is often used to fit the straight line. The weight movements give a good spread of points on the test plot.

3. Plotting all of the readings for each of the pendulums during the inclining experiment aids in the discovery of bad readings. Since (W) (x) / tan should be constant, the plotted line should be straight. Deviations from a straight tine are an indication that there were other moments acting on the vessel during the inclining. These other moments should be identified, the cause corrected, and the weight movements repeated until a straight line is achieved. - Figures A- D illustrate examples of how to detect some of these other moments during the inclining, and a recommended solution for each case. For simplicity, only the average of the readings is shown on the inclining plots.

4. Once everything and everyone is in place, the zero position should be obtained and the remainder of the experiment conducted as quickly as possible, while maintaining accuracy and proper procedures, in order to minimize the possibility of a change in environmental conditions during the test.

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5 Prior to each pendulum reading, each pendulum station should report to the control station when the pendulum has stopped swinging. Then, the control station will give a "standby" warning and then a "mark" command. When "mark" is given, the batten at each position should be marked at the location of the pendulum wire. If the wire was oscillating slightly, the centre of the oscillations should betaken as the mark. If any of the pendulum readers does not think the reading was a good one, the reader should advise the control station and the point should be retaken for all pendulum stations. Likewise, if the control station suspects the accuracy of a reading, it should be repeated for all the pendulum stations. Next to the mark on the batten should be written the number of the weight movement, such as zero for the initial position and one through seven for the weight movements.

6 Each weight movement should be made in the same direction, normally transversely, so as not to change the trim of the vessel. After each weight movement, the distance the weight was moved (centre to centre) should be measured and the heeling moment calculated by multiplying the distance by the amount of weight moved. The tangent is calculated for each pendulum by dividing the deflection by the length of the pendulum. The resultant tangents are plotted on the graph. Provided there is good agreement among the pendulums with regard to the tan q value, the average of the pendulum readings may be graphed instead of plotting each of the readings.

7. inclining data sheets should be used so that no data is forgotten and so that the data is clear, concise, and consistent in form and format. Prior to departing the vessel, the person conducting the test and the Administration representative should initial each data sheet as an indication of their concurrence with the recorded data.

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Fig. B
(Vessel touching the bottom or restrained by the mooring lines)

Fig. D
(Gusty winds from port side)

Fig . A
(Excessive Free liquids)

Fig. C
(Steady wind from port side came up after initial zero)

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(See rule 21)

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Section 1

General

1.1 Scope

1.1.1 The requirements of this Chapter and those given in Ch.2 to 10 apply to the. construction and installation or main propulsion and auxiliary machinery systems, together with their associated equipment, boilers, pressure vessels and pumping and piping arrangements fined in vessels intended to be classed with IRS.

1.2 Machinery to be constructed under survey

1.2.1 In vessels intended to be built under Special Survey, all important units of equipment are to be surveyed at the manufacturer's works. The workman vessel is to be to the Surveyor's satisfaction and the Surveyor is to be satisfied that the components are suitable for the intended purpose and duty. Examples of such units are:

Main propulsion engines, including their associated gearing, flexible couplings, scavenge blowers and superchargers;

Boilers supplying steam for propulsion or for services essential for the safety of the operation of the vessel in the waterway including superheaters. Economizers desuperheaters, steam receivers. All other boilers having working pressures exceeding 3.5 bar, and having healing surfaces greater than 4.65 [m^2]

- Auxiliary engines of 110 [kW] (150 shp) and over which are the source of power for services essential For safely or for the operation of the vessel.
- Steering machinery.
- Athwartvessel thrust units, their prime movers and control mechanisms:
- All pumps necessary for the safety of vessel, e.g. bilge, ballast, fire pumps, etc.:
- Air compressors, air receivers and other pressure vessels necessary for the operation of main propulsion and essential machinery.
- Alarm and control equipment as detailed in Ch.7; and
- Electrical equipment and electrical propelling machinery as detailed in Ch. 8.

1.3 Extent of survey

1.3 1 The Surveyors are to examine and test the materials and workmanvessel from me commencement of work until the final test of the machinery under full power working conditions. Any defects, etc., are to be indicated as early as possible. On completion, the Surveyors will submit a report and. if this is found to be satisfactory by IRS. a certificate of class will be

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granted and an appropriate notation assigned in accordance with P1.1.

1.4 Departures from the rules

1.4.1 Where it is proposed to depart from the requirements of the Rules, classification society will be prepared to give due consideration to the circumstances of any special case.

1.5 Plans and particulars

1.5.1 Before the work is commenced, plans in triplicate of all machinery items, as detailed in the Ch.2 to 9 giving the requirements for individual systems, are to be submitted for approval. The particulars of (he machinery, including power ratings and design calculations, where applicable, necessary to verify the design, are also to be submitted. Any subsequent modifications are subject to approval before being put in to operation.

1.5.2 The strength requirements for rotating parts of the machinery, as specified in Ch.4 to 8, are based upon strength consideration only and their application does not relieve the manufacturer from the responsibility for the presence of dangerous vibrations in the installation at speeds within the operating range.

1.6 Availability of machinery for operation

1.6.1 The design and arrangement is to be such that the machinery can be started and controlled on board vessel without external aid, so that operating conditions can be maintained under all circumstances.

1.7 Ambient reference conditions

1.7.1 The rating of the main and auxiliary machinery is to be suitable for the temperature conditions associated with the geographical limits of the restricted service.

1.7.2 Machinery installations are to be designed such as to ensure proper operations under the conditions as under:

- Permanent list of 10°
- Permanent trim of 5-

1.8 Power ratings

1.8.1 In the following Chapters, where the dimensions of any particular component are determined from shaft power, P in [kW] (H, in shp). and revolutions per minute, R, the values to be used are to be derived from the following :

- For main propelling machinery, the maximum shaft power and corresponding revolutions per minute giving the maximum torque for which the machinery is to be classed; and
- For auxiliary machinery, the maximum continuous shaft power and corresponding revolutions per minute which will be used in service.

1.9 Units

1.9.1 Units and formulae included in the Rules are shown in SI units followed by metric units in brackets, where appropriate.

1.9.2 Where the metric version of shaft power, i.e. (shp). appears in the Rules, 1 shp is equivalent to 75 [kgf metre/sec] or 0.735 [kW].

1.9.3 Pressure gauges may be calibrated in bar.

where,

1 bar = 0.1 [N/mm^2] = 1.02 [kgf/cm^2]

1.10 Power conditions for generator sets

1.10.1 Auxiliary engines coupled to electrical generators are to be capable under service conditions of developing continuously the power to drive the generators at full rated output and, if developing for a short period (15 minutes) an overload power of not less than 10 per cent.

1.10.2 Engine builders are to satisfy the Surveyors by tests on individual engines that the above requirements, as applicable, can be complied with, due account being taken of the deference between the temperature under lest conditions and those specified in 1.7.1. Alternatively, where it is not practicable to lest the engine/generator set as a unit, type tests (e.g. against a brake) representing a particular size and range of engines may be accepted. With oil engines any fuel stop fitted is to be set to permit the short period overload power of not less than 10 per cent above full rated output being developed.

1.11 Fuel

1.11.1 The (lash point (closed cup test) of oil fuel is to be not less than 55°C. unless specially approved. 1.11.2 Fuels with flash points lower than 55°C, but not less than 43°C, unless specialty approved, may be used in vessels

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intended for service restricted to certain geographical limits, where it can be ensured that the. temperature of the machinery spaces will always be 10°C below the flash pint of the fuel. In such cases, safety precautions and the arrangements for storage and pumping will be specially considered.

1.12 Astern Power

1.12.1 Sufficient astern power is to be provided to maintain control of the vessel in all normal circumstances.

Section 2

Machinery Room Arrangements

2.1 General

2.1.1 The machinery is to be so designed, installed and protected that rjsks of fire, explosions, accidental pollution, leakages and accidents thereof, and accidents to personnel working in machinery spaces will be minimised.

2.1.2The design and arrangement of machinery foundations, shaft connections, piping and ducting is to take into account the effects of thermal expansion, vibrations, misalignment and hull interaction to ensure operation within safe limits. Bolts and nuts exposed to dynamic forces and vibrations are to be properly secured.

2.2 Accessibility

2.2.1 Accessibility, for attendance and maintenance put poses, is to be provided for machinery plants.

2.3 Fire protection

2.3.1 All surfaces of machinery where the surface temperature may exceed 220°C and where impingement of flammable liquids may occur are to be effectively shielded to prevent ignition. Where insulation covering these surfaces is oil absorbing or may permit penetration of oil, the insulation is to be encased in steel or equivalent.

2.3.2 Flammable or oil absorbing materials are not to be used in floors, gratings, etc. in boiler and engine rooms, shaft tunnels or in compartments where settling lanks are installed.

2.4 Ventilation

2.4.1 All spaces, including engine and cargo pump spaces, where flammable or toxic gases or vapours may accumulate, are to be provided with adequate ventilation under all conditions.

2.5 Communications

2.5.1 At least one independent means of communication is to be provided between the bridge and engine room control station.

Section 3

Trials

3.1 General

3.1.1 Tests of components and trials of machinery, as detailed in the Chapters giving the requirements for individual systems are to be carried out the satisfaction of the Surveyors.

3.2 Trials

3.2.1 For all types of installations, the trials are to be of sufficient duration, and carried out under normal maneuvering conditions, to prove the machinery under power. The trials are also to demonstrate that any vibration which may occur within the operating speed range is acceptable. 3.2.2 The trials are to include demonstrations of the following.

- The adequacy of the starling arrangements to provide the required number of starts of the main engines;
- The ability of the machinery to reverse the direction of thrust of the propeller in sufficient lime, under normal maneuvering

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Conditions, and so bring the vessel to rest from maximum ahead rated speeds

3.2.3 Where controllable pitch propellers are fitted, the Tree route astern trial is to be carried out with the propeller blades set in full pitch astern position. Where emergency manual pitch setting facilities are provided, their operation is to be demonstrated to the satisfaction of the Surveyors.

3.2.4. All trials are to be to Surveyor's satisfaction.

Section 4

Certification of Machinery and Components based upon Quality Management Systems

4.1 General

4.1.1 This certification scheme is applicable to works where the employment of quality control procedures is well established. Classification society will have to be satisfied that the practices employed will ensure that the quality of finished products is to the standards which would be demanded when using traditional survey procedures.

4.1.2 Classification society will consider proposed designs (or compliance with the Rules, or other appropriate requirements, and the extent to which the manufacturing processes and control procedures ensure conformity of the product to the design. A comprehensive survey will be made by the Surveyors of the actual operation of the qualify control programme and of the adequacy and competence of the staff to implement it.

4.1.3 Where classification society considers that the requirements of 4.1.2 can be satisfactorily complied with, the manufacturers will in general, be approved and authorised to inspect and certify their products.

4.1.4 The procedures and practices of manufacturer which have been granted approval will be kept under continuous review.

4.1.5 Approval by another organization will not normally be acceptable as sufficient evidence that a manufacturer's arrangements comply with class requirements.

4.2 Requirements for approval

4.2.1. The manufacturer is required to have adequate equipment and facilities for those operations appropriate to the level of design, development and manufacture being undertaken.

4.2.2 The manufacturer shall demonstrate that the firm has experience consistent with technology and complexity of the product for which approval is sought and that firm's products have been of a consistently high standard.

4.2.3 The manufacturer should have implemented quality management systems generally in accordance with the ISO 9000 series of standards.

4.2.4 The manufacturer shall establish and maintain procedures and controls to ensure that class requirements for certification of materials and components at sub-contractor's works are complied with to the satisfaction of classification society.

4.3 Information required for approval

4.3.1 Manufacturers applying for approval under this scheme are lo submit the following information:

- Description of the products for which certification is required including, where applicable, model or type number;
- Applicable plans and details of materials used;
- An outline description of ail important manufacturing plant and equipment;
- A summary of equipment used for measuring and testing during manufacturing and completion;

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- The quality manual:
- The system used for identification and traceability;
- Number and qualification of personnel engaged in quality control and quality assurance; and
- A list of suppliers of materials and components and proposed arrangements to ensure compliance with class requirements for certification.

4.4. Approval and maintenance of approval

4.4.1 After receipt and appraisal of the information required by 4.3. an assessment of the Works would be carried out by the Surveyors to ensure compliance with the quality manual.

4.4.2. If the initial assessment of the Works confirms that the implementation of the quality management systems is satisfactory, classification society will issue to the manufacturer a Quality Assurance Approval Certificate which will include details of the products for which approval has been given:

4.4.3 An extension of approval in respect of product type may be given at the discretion of classification society without any additional assessment.

4.4.4 The certificate will be valid for 3 years subject to surveillance assessments being carried out every 6 months.

4.4.5 When significant faults or deficiencies are found during surveillance assessments or surveillance assessments are not carried out. the certificate of approval may be withdrawn / suspended at the discretion of classification society.

4.5 Certification of products

4.5.1 After issue of the Quality Assurance Approval Certificate. the manufacturer would be authorized to issue certificate for products on behalf of classification society subject to the certificates being countersigned by classification society Surveyors. Arrangements for this will be specially advised by classification society.

End of Chapter

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Chapter 2

Piping Design Requirements

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3	Copper and copper alloy pipes and fittings
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5	Plastic Pipes
6	Flexible Hoses
7	Hydraulic Tests on Pipes and Fittings

Section 1

General

1.1 Scope

1.1.1 The requirements of this Chapter apply to the design and construction of piping systems. including pipe fillings forming parts of such systems but excluding steam piping systems and systems where the temperature exceeds 300°C.

1.1.2 For steam piping systems and systems having temperatures greater than 300°C, the Rules and Regulations for the Construction & Classification of Steel Vessels will be applicable.

1.2 Classes of pipes

1.2.1 For the purpose of testing, type of joints to be adopted, heat treatment and welding procedure, piping systems are divided into three classes, as given in Table 1.2.1.

1.2.2 For. Class I piping, the Rules and Regulations for the Construction & Classification of Steel fesse/swill be applicable.

1.2.3 In addition to the pressure piping systems;" in Table 1.2.1. Class III pipes may be used for open ended piping, e.g. overflows, vents, boiler waste steam pipes, open ended drains etc.

1.3 Design pressure

1.3.1. The design pressure. P. is the maximum permissible working pressure and is to be not less than the highest set pressure of the safety valve or relief valve.

1.3.2. The design pressure of feed piping and other piping on the discharge from pumps is to be taken as the pump pressure at full rated speed against a shut valve. Where a safety valve or other protective device is fitted to restrict the pressure to a lower value than the shut valve load, the design pressure is to be the highest set pressure of the protective device.

Table 1.2.1 Classes of piping systems

Piping system	Class I	Class II	Class III
Fuel Oil	P > 16 or T > 150	P ≤ 16 and T ≤ 150	P ≤ 7 and T ≤ 60
Other media 6	P > 49 or T > 300	P ≤ 40 and T ≤ 300	P ≤ 16 and T ≤ 200

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1.4 Design temperature

1.4.1 The design temperature is to be taken as the maximum temperature of the internal fluid, but in no case is it to be less than 50°C.

1.5 Design symbols

1.5.1 The symbols used in this Chapter are defined as follows:

a = percentage negative manufacturing tolerance on thickness;

b = bending allowance [mm];

c = corrosion allowance [mm];

D = outside diameter of pipe [mm] (see 1,5,2);

d = inside diameter of pipe [mm] (see 1.5.3);

e = weld efficiency factor (see 1.5.4);

P = design pressure, in [N/mm^2];

Pt = hydraulic test pressure, in [N/mm^2];

R - radius of curvature of a pipe bend at the centreline of the pipe [mm];

T = design temperature. in C°;

t = the minimum thickness of a straight pipe [mm] including corrosion allowance and negative tolerance, where applicable:

t_b, = the minimum thickness of a straight pipe to be used for a pipe bend [mm] including bending allowance, corrosion allowance and negative tolerance, where applicable;

σ = maximum permissible design stress, in [N/mm^2].

1.5.2 The outside diameter, D, is subject to manufacturing tolerance, but these are not to be used in the evaluation of formulae.

1.5.3 The inside diameter, d, is not to be confused with nominal size, which is an accepted designation associated with outside diameters of standard rolling sizes..

1.5.4 The weld efficiency factor, e, is to be taken as 1.0 for seamless and electric resistance and induction welded steel pipes. Where other methods of pipe manufacture are proposed, the value of e will be specially considered.

1.6 Heat treatment

1.6.1 Method of heat treatment and means of temperature control and recording are to be to the satisfaction of Surveyors.

Section 2

Carbon and Low Alloy Steel Pipes and Fittings

2.1 Materials

2.1.1 Materials for Class I and Class II piping systems, also for vessel-side valves and fittings and valves on the collision bulkhead, ate to be manufactured and tested in accordance with the appropriate requirements of Ch.d, Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels.

2 1 2 Materials for Class 111 piping systems may be manufactured and lasted in accordance with the requirements of acceptable national / international specifications. Pipes having forge butt welded longitudinal seams are not to be used for oil fuel systems, for heating coils in oil tanks, or for pressures exceeding 0.4 [N/mm^3]. The manufacturer's test certificate will be acceptable and is to be provided for each consignment of material..

2.2 Minimum thickness of steel pipes and bends

2.2.1 The maximum permissible design stress, σ, is to be taken as the lowest of the following values:-

$$\sigma = \frac{Et}{1.6} \text{ or } \sigma = \frac{R_{20}}{2.7} \text{ or } \sigma = \frac{S_R}{1.6}$$

where.

Et = specified minimum lower yield or 0.2 per cent proof stress at the design temperature.

R_{20} = specified minimum tensile strength at ambient temperature,

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S_R = average stress to produce rupture in 100.000 hours at the design temperature.

Table 2.2.1. : Carbon and Carbon-managanese steel pipes : Maximum permissible stress [N/mm^2]					
Design Temp. ^oC	Specified minimum tensile strength [N/mm^2]				
	320	360	410	460	490
50	107	120	136	151	160
100	105	117	131	146	156
150	99	110	124	139	148
200	92	103	117	132	141
250	78	91	106	122	131
300	62	76	93	111	121

2.2.2 The minimum thickness, t, of straight steel pipes is to be determined by the following formula :-

$$t = \left(\frac{PD}{20\sigma e + P} + C\right)\frac{100}{100 - a}[mm]$$

where,
P, D, e and a are defined in Sec.1, Cl.1.5.1

σ is defined in 2.2.1 and also obtained from Tables 2,2.1.

c is obtained from Table 2.2.2.

Table 2.2.2. : Values of C for steel pipes	
Piping Service	C [mm] (See note)
Compressed air system	1.0
Hydraulic / Lubricating oil systems	0.3
Fuel oil systems	1.0
Cargo oil systems	2.0
Refrigerating plants	0.3
Fresh water systems	0.8

Note :

For pipes passing though tanks an additional corrosion allowance is to be considered according to the figures given in Table and depending upon the external medium in order to account for the external corrosion.

2.2.3 The minimum thickness, t_b,of a straight steel pipe to be used for a pipe bend is to be determined by the following formula, except where it can be demonstrated that the use of a thickness less than t_b would not reduce the thickness below t_b at any point alter bending :-

$$t_b = \left(\frac{PD}{20\sigma e + P} + b + c\right)\frac{100}{100 - a}[mm]$$

Where
P, D, R, e, b and a are defined in Sec.1, Cl. 1.5.1;

σ and c are defined in tables 2.2.1 and 2.2.2 respectively;

$$b = \frac{D}{2.5R}\left(\frac{PD}{2\sigma e + P}\right)[mm]$$

In general, R, is to be not less than 3D.

2.2.4 The minimum thickness calculated in accordance with 2.2.2 and 2.2.3 is not to be less than that given in Table 2.2.4. Where the pipes are efficiently protected against corrosion, the thickness may be reduced by not more than 1.0 [mm]. For threaded pipes, where permitted, the thickness is to be measured at the bottom of the threads.

Table 2.2.4. : Minimum pipe thicknesses, t[mm], (see note)		
External diameter D [mm]	Pipes in general	Venting overflow & sounding pipes for structural tanks
10.2 – 12	1.6	-
13.5 – 19.3	1.8	-
20	2	-
21.3 – 25	2	-
26.9 – 33.7	2	-
38 – 44.5	4	4.5
48.3	2.3	4.5
51 – 63.5	2.3	4.5
70	2.6	4.6
76.1 – 82.5	2.6	4.5
88.9 – 108	2.9	4.5
114.3 – 127	3.2	4.5
133 – 139.7	3.9	4.5
152.4 – 168.3	4	4.5
117.8	4.5	5
193.7	4.5	5.4
219.1	4.5	5.9

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244.5 - 273	5	6.3
298.5 – 368	5.6	6.3
406.4 – 457.2	6.3	6.3

2.3 Flange connections

2.3.1 Flanges with their pressure-temperature ratings in accordance with recognized national / international standards will normally be accepted.

2.3.2. Flanges may be cut from plates or may be forged or cast. The material is to be suitable for (he design temperature. Flanges may be attached to the branches by screwing and expanding or by welding. Alternative methods of flange attachment may be accepted provided details are submitted for consideration.

2.3.3. Examples of accepted flanged connections and their uses are given in Fig. 2.3.1 and Table 2.3.1 respectively

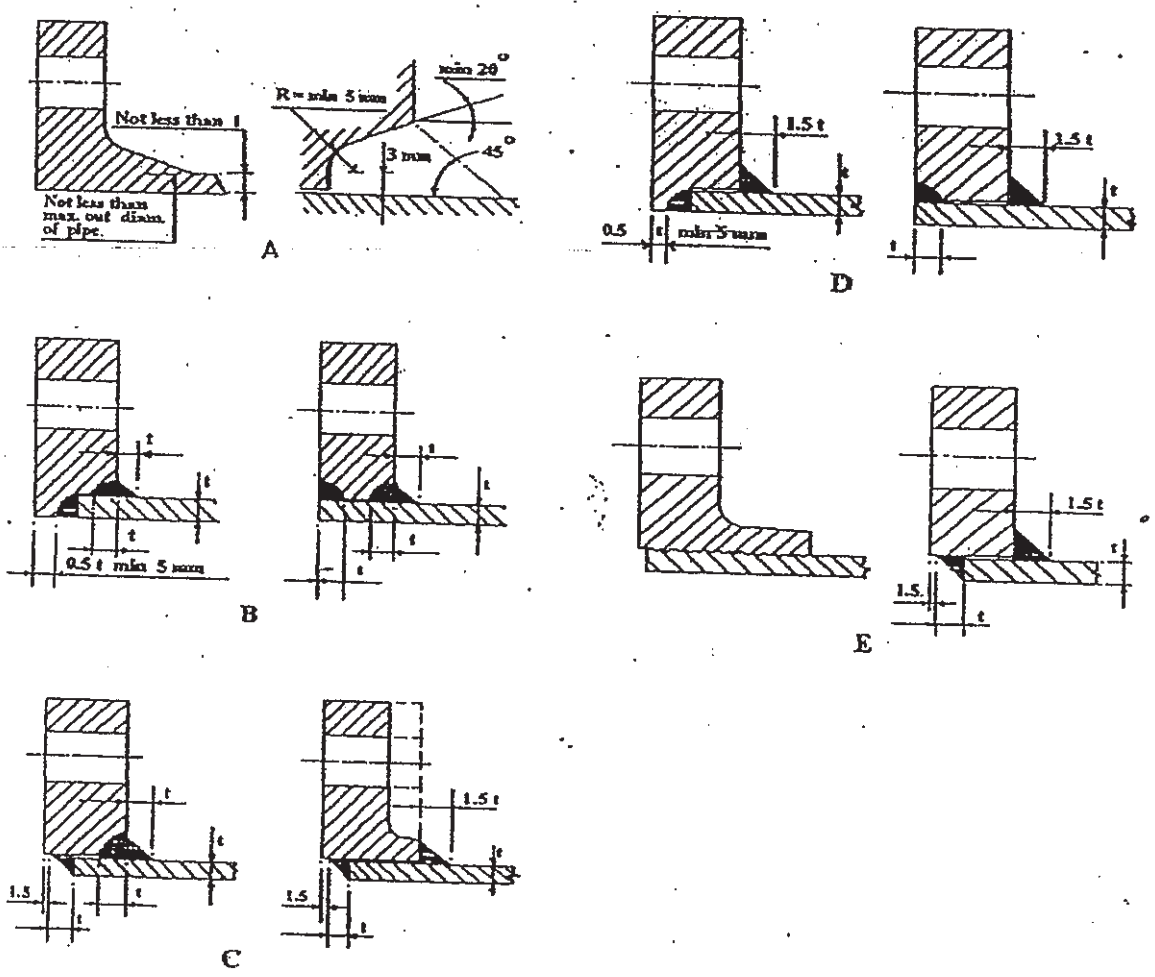


Fig. 2.3.1

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Table 2.3.1. Type of flange connections			
Class of piping	Lub. And fuel oil	Other media	
	Typical flange application	t°C	Typical flange application
II	A – B – C	> 250 ≤ 250	A – B – C A – B – C – D – E
III	A – B – C – E		A – B – C – D – E

2.3.4 Where flanges are secured by screwing as indicated in Fig. 2.3.1, the pipe and flange are to be screwed with a vanishing thread and the diameter of the screwed position of pipe over the thread is not to be appreciably less than the outside diameters of the unscrewed pipe. After the flange has been screwed hard home, the pipe is to be expanded into the flange. The vanishing thread on a pipe is to be not less than three pitches In length, and the diameter at the loot of the thread is to increase uniformly from the standard root diameter to the diameter at the top of the thread. This may be produced by suitably grinding the dies, and the flange should be tapered out to the same formation.

2.4 Threaded sleeve joints

2.4.1 Threaded sleeve joints, in accordance with national or other established standards, may be used with carbon steel pipes within the limits given in Table 2.4.1 and for services other than pipe systems conveying combustible fluids.

Table 2.4.1 : Limiting design conditions for threaded sleeve joints.		
Nominal bore [mm]	Maximum pressure [N / mm^2]	Maximum Temperature °C
≤ 25	1.2	260
> 25 ≤ 40	1.0	260
> 40 ≤ 80	0.85	260
> 80 ≤ 100	0.7	260

2.5 Non-destructive examination of welded pipes

2.5.1 In addition to visual examination of pipe welds by the Surveyors, non-destructive examination of butt and fillet welds is to be carried out in accordance with 2.5.2 to 2.5.4 to the satisfaction of the Surveyors.

2.5.2 Selected butt welds of pipes of outside diameter of 101.6 [mm] and over in Class II piping systems are to be radiographed at Surveyor's discretion. Use of ultrasonic examination in lieu of radiography will be specially considered.

2.5.3 Selected fillet welds in pipes of 101.6 [mm] outside diameter and over in Class II piping systems are to be examined by magnetic particle or liquid penetrate flaw testing at Surveyor's discretion.

2.5.4 Detects in welds are to be rectified and re-examined by the appropriate lest method, all to the satisfaction of the Surveyors.

2.6 Post-weld heat treatment

2.6.1 Carbon and carbon-manganese steel pipes and fabricated branch pieces, manufactured from material having a carbon content not exceeding 0.25 per cent and having a thickness exceeding 30 [mm], are to be given a stress relieving heal treatment on completion of welding. All pipes and branches having a carbon content in excess of 0.25 per cent are to be given a stress believing heat treatment. Where oxy-acetylene welding has been employed, however, all the pipes and branch pieces are to be normalized on completion of welding.

Section 3

Copper and Copper Alloys Pipes and Fittings

3.1. Material

3.1.1. Materials for class II piping systems and vesslside valves and fittings and valves on the collision bulkhead are to be manufactured and

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tested in accordance with the requirements of Ch. 8, Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels.

3.1.2 Materials for Class III piping systems are to be manufactured and tested in accordance with the requirements of acceptable national / international specifications. The manufacturer's test certificate will be acceptable and is to be provided for each consignment of material.

3.1.3 Pipes are to be seamless and branches are to be provided by cast or stamped fittings. pipe pressings or other approved fabrications.

3.1.4 Brazing and welding materials are to be suitable for the operating temperature and for the medium being carried. All brazing and welding are to be carried out to the satisfaction of the Surveyors.

3.1.5 In general, the maximum permissible service temperature of copper and copper alloy pipes, valves and fittings is not to exceed 200°C for copper and aluminium brass, and 300°C for copper nickel. Cast bronze valves and fittings complying with the requirements of Ch.8, Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and classification of Steel Vessels may be accepted up to 260°C.

3.2 Minimum thickness of pipes

3.2.1 The minimum thickness, t, of straight copper and copper alloy pipes is to be determined by the following formula :-

$$t_b = \left(\frac{PD}{20\sigma e + P} + b + c \right) \frac{100}{100 - a} [mm]$$

where P, D and a are as defined in Sec. 1, Cl. 1.5.1. ;

σ = maximum permissible design stress, in [N/mm^2], from Table 3.2.1; Intermediate values of stresses may be obtained by linear interpolation;

c = corrosion allowance;

= 0.8 [mm] for copper, aluminum brass and copper-nickel alloys where the nickel content is less than 10 per cent;

= 0.5 [mm] for copper-nickel alloys where the nickel content is 10 per cent or greater;

= 0 where the media are non-corrosive relative to the pipe material.

Table 3.2.1 : Copper and copper alloy pipes

Pipe material	Condition of supply	Specified min. tensile strength [N/mm^2]	Permissible stress [N / mm^2]					
			Maximum design temperature ^{o}C					
			50	75	100	125	150	175
Copper	Annealed	220	14.2	14.2	40.2	40.2	34.3	27.5
Aluminum brass	Annealed	320	78.5	78.5	78.5	78.5	78.5	51.0
90 / 10 coppe nicket iron	Annealed	270	68.6	68.6	67.7	65.7	63.7	61.8
70 / 30 copper nicket	Annealed	360	81.4	79.4	77.5	75.5	73.5	71.6
			Maximum design temperature ^{o}C					
			200	225	250	275	300	
Copper	Annealed	220	18.6	-	-	-	-	
Aluminium brass	Annealed	320	24.5	-	-	-	-	
90 / 10 copper nicket iron	Annealed	270	58.8	55.9	52.0	48.1	44.1	
70 / 30 copper nicket	Annealed	360	69.6	67.7	65.7	63.7	61.8	

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3.2.2 The minimum thickness, t_b. of a straight seamless copper or copper alloy pipe to be used for a pipe bend is to be determined by the formula below, except where it can be demonstrated that the use of a thickness less than t_6 would not reduce the thickness below T at any point after bending :

$$t_b = \left(\frac{PD}{20\sigma e + P} + b + c \right) \frac{100}{100 - a} [mm]$$

where P, D, b and c are defined in Sec.1, Cl.1.5.1, and e and c are defined in 3.2.1

$$b = \frac{D}{2.5R} \left(\frac{PD}{2\sigma e + P} \right) [mm]$$

2.5R In general. R is to be not less than 3D.

3.2.3 Where the minimum thickness calculated by 3.2.1 or 3.2.2 is less than shown in Table 3.2.2, the minimum nominal thickness for the appropriate standard pipe size shown in the Table is to be used. No allowance is required for negative tolerance or reduction in thickness due to bending on this nominal thickness. For lhreaded pipes, where permitted, the minimum thickness is to be measured at the bottom of the thread.

3.3 Heat treatment

3.3.1 Pipes which have been hardened by cold bending are to be surtably heat treated on completion of fabrication and prior to being lested by hydraulic pressure. Copper pipes are to be annealed and copper alloy pipes are to be either annealed or stress relief heat treated.

Table 3.2.2. : Limiting design conditions for threaded sleeve joints

Standatd pipe sizes (outside diameter) [mm]	Minimum overriding nominal thickness [mm]	
	Copper	Copper alloy
8 to 10	1.0	0.8
12 to 20	1.2	1.0
25 to 44.5	1.5	1.2
50 to 76.1	2.0	1.5
88.9 to 108	2.5	2.0
133 to 159	3.0	2.5
193.7 to 269	3.5	3.0
273 to 457.2	4.0	3.5
508	4.5	4.0

Section 4
Cast Iron Pipes and Fittings

4.1 Spheroidal or nodular graphite cast iron

4.1.1 Spheroidal or nodular graphite iron castings for pipes, valves and finings in Class H and 111 piping systems aie 10 be made in a graae haying a specified minimum elongation not less than 12 per cent on gauge length of 5.65 So, where So is the actual cross-sectional area of the lesl piece.

4.1.2 Castings for Class II and III systems, also for vessel-side valves and fittings and valves on collision bulkhead, are to be manufactured and tested in accordance with the requirements of acceptable national specifications. A manufacturers test certificate will be accepted and re to be picked for each consignment of material.

4.1.3 Where the elongation is less than the minimum required by 4.1.1, the material is, in general, to be subject to the same limitations as grey cast Iron.

4.2 Grey cast iron

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4.2.1. Grey cast iron pipes, valves and fittings will, in general, be accepted in Calss III piping systems except as stated in 4.2.2.

4.2.2 Grey cast iron is not to be used for the following:

a) Pipes for steam systems and fire extinguishing systems;

b) Pipes, varves and fittings for boiler below down systems and olher piping systems subject to shock or vibration;

c) Vessel-side valves and fittings;

d) Varves lilted on collision bulkhead;

e) Clean ballast lines through cargo oil tanks to forward ballast tanks;

f) Bilge lines in tanks;

g) Outlet valves of fuel tanks wrth static head.

4.2.3 Grey iron castings for piping systems are to comply with acceptable national / international specifications.

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Section 5

Plastic Pipes

5.1 General

5.1.1 Proposals to use plastics material, in vesselboard piping systems will be consicfered in relation to the properties of the materials, the operating conditions of temperature and pressure, and the intended service. Any proposed service Tor plastics pipe not mentioned in these Rules is to be submitted for special consideration.

5.1.2 The specification of the plastics material, including mechanical and thermal properties and chemical resistance dat3, is to be submitted for consideration.

5.1.3 These requirements are applicable to thermo-plastic pipes but. where appropriate, may also be applied to pipes manufactured in fibre-reinforced thermosetting resins.

5.1.4 Plastics pipes are not to be used where they will be subjected to temperatures above 60°C or below 0°C. Special consideration will be given to particular materials in appropriate applications at higher temperatures.

5.2 Applications

5.2.1 Plastics pipes of approved type may be used for the following services:

a) Air and sounding pipes to tanks used exclusively for carrying waler ballast or fresh water, with the exception of the portion above deck;

b) Sounding pipes to cargo holds;

c) Water ballast and fresh water pipes situated inside tanks used exclusively for carrying water ballast or fresh waler and

d) Scupper pipes draining inboard provided they are not led within the boundaries of refrigerated chambers. The first two Hems (a and b) are not applicable to passenger vessels.

5.2.2. Plastics pipes may be used for domestic and similar services for which there are no Rule requirements, such as for the following:

a) Domestic cold sea and fresh water systems;

b) SanHary systems;

c) Sanitary and domestic waste pipes wholly situated above (he freeboard deck; and

d) Water pipes associated with air conditioning plants,

Not withstanding the foregoing, plastics pipes are not to be used in sea water systems where leakage or failure of the pipes could give rise to the danger of flooding.

5.2.3 Since plastics materials are generally heal sensitive and very susceptible to fire damage. plastics pipes will not be acceptable for service essenlial to safety, such as the following :

a) Fire extinguishing pipes;

b) Bilge pipes in cargo holds;

c) Bilge and ballast pipes in the machinery space;

d) Main and auxiliary water circulating pipes;

e) Feed and condensate pipes; and

f) Pipes carrying oil or other flammable liquids.

5.3 Intactness of bulkheads and decks

5.3.1 Where plastics pipes are arranged to pass through watertight or fire- resisting bulkheads or decks, provision is to be made for maintaining the integrity of the bulkhead or deck in the event-of pipe failure. Details of the arrangements are to be submitted for approval.

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5.3 Design and construction

5.4.1 Pipes and fittings are to be of robust construction and are to comply with the requirements of such national /international standards as may be consistent with their intended use. Particulars of scantlings and joints are to be submitted for consideration.

5.4.2. All pipes are to be adequately but freely supported. Suitable provision for expansion and contraction is to be made in each range of pipes to allow for large movements between plastics pipe and steel structure, the coefficient of thermal expansion for plastics being eight or more times that of steel.

5.4.3 All fittings and branches are to be suitable for the intended service and are to have joints of cemented, flanged or other approved types,

5.4.4. The strength of the pipes and fittings and the acceptability of any jointing system employed is to be check tested at the Surveyor's discretion. The strength of pipes. Mings, joints between pipes and joints between pipes and fittings, as appropriate, is to be determined by hydraulic pressure tests to destruction of sample assemblies. The pressure is to be so applied that failure of the lest sample assembly occurs in not less than 5 minutes. Deformation of the pipes and fittings during tests is acceptable.

Section 6

Flexible Houses

6.1 General

6.1.1 Short joining lengths of flexible hoses of approved type may be used, where necessary to accommodate relative movement between various items of machinery connected to permanent piping systems.

6.1.2 For the purpose of approval for the applications in 6.2, details of the materials and construction of the hoses, and the method of attaching the end fittings, are to be submitted for consideration.

6.1.3 In general, lhe use of hose clips as a means of securing the ends of hoses ts to be restricted to the engine cooling water system, where the hose consists of a short, straight length joining two metal pipes, between two fixed points on the engine.

6.1.4. Prototype pressure lesls are to be carried out on each new type of hose, complete with end finings, and in no case is the bursting pressure to be less than five times the maximum working pressure in service.

6.1.5 Attenlion is to be given to any statutory requirements of the National Authority of the country in which the vessel is to be registered. Such requirements may include a fire lest for hoses thai are intended to be used in syslems conveying flammable fluids or sea water.

6.2 Applications

6.2.1 Synthetic rubber hoses, with integral cotton or similar braid reinforcement, may be used in fresh and sea water cooling syslems. In the case of sea water systems, where failure of the hoses could give rise to the danger of flooding, the hoses are to be suitably enclosed.

6.2.2. Synthetic rubber hoses, with single or double closely woven integral wire braid reinforcement, or convoluted metal pipes with wire braid protection may be used in bilge, ballast, compressed air fresh water, sea water, fuel oil and lubricating oil syslems. Where synthetic rubber hoses are used for fuel oil supply to burners, the hoses are to have external wire braid proleclion in addition to the integral wire braid.

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Section 7

Hydraulic Tests on Pipes and Fittings

7.1. 7.1 Hydraulic tests before installation on board

7.1.1 All Class II pipes and their associated fitlings are to be lesled by tiydiaulic pressure to the Surveyor's satisfaction. Further, all steam, feed, compiessed air and fuel oil pipes, together with their fittings, are to be similarly tested where the design pressure is greater than 0.35 [N/mm^2]. The test is to be carried out after completion of manufacture and before installation on board and, where applicable, before insulating and coating.

7.1.2 The test pressure is to be 1.5 times the design pressure.

7.1.3. All valve bodies are to be tested by hydraulic pressure to 1.5 times the nominal pressure rating at ambient temperature. However, the test pressure need nol be more than 7 [N/mm^2] above the design pressure specified for the design temperature.

7.3 Testing after assembly on board

7.2.1 Heating coils in tanks and fuel oil piping are to be tested by hydraulic pressure, after installation on board, to 1.5 times the design pressure but in no case to less than 0.35 [N/mm^2].

7.2.2. Where bilge pipes are accepted in way of double bottom tanks or deep tanks, Ihe pipes after Titling are to be tested by hydraulic pressure to the same pressure as the tanks through which they pass.

End of Chapter

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Chapter 3
Pumping and Piping

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Section 1
General

1.1 Scope

1.1.1 The requirements of this Chapter are applicable to all vessels except where otherwise stated.

1.1.2 Piping systems layouts, for which no requirements are given herein, will be specially considered.

1.2 Plans

1.2.1 The following plans in diagrammatic form are to be submitted for consideration before proceeding with the work.

a) General arrangement of pumps and piping systems;
b) Fuel oil filling, transfer and service piping systems;
c) Bitge and ballast piping systems.
d) Lubricaling-oil piping systems;
e) Liquid cargo pumping systems;
f) Hydraulic power piping systems for essential services;
g) Compressed air piping systems;
h) Steering gear piping systems;
i) Sea water and fresh water service piping systems;
j) Air and sounding piping systems;
k) Steam and feed water piping systems
l) Sanitary piping systems;
m) Fire main and fire extinguishing piping systems.

1.2.2 The plans are to include the information like, wall thickness, maximum working pressure temperature and material of all pipes and type, size and material of the valves and fittings.

1.3 Materials

1.3.1. Thematerialeto be used in piping systems are to be suitable for the service intended. In general, except where otherwise stated, pipes, valves and fittings are to be made of steel, cast iron, copper, copper alloy or other approved material.

1.3.2. Cast iron ts not to be used for:

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a) Vesselside and collision bulkhead fittings;

b) Outlet valves or fuel tanks with static head;

c) Bilge and ballast lines passing through double bottom tanks, pipe tunnel and cargo oil tanks;

d) Any piping which can be subjected to shock such as water hammer.

1.3.3 Materials sensitive to heat such as aluminium, lead or plastics, are not to be used in systems essential to the safe operation of the vessel.

1.4 Design pressure

1.4.1. The design pressure is considered to be, the most severe condition of co-incident pressure and temperature expected in normal operation. For this purpose the maximum difference in pressure between inside and oulside of the part is to be considered-

1.5 Design temperature

1.5.1 Unless otherwise specified the tempe rature used in design is to be not less than the mean metal temperature (through the thickness) expected under operating conditions for the part considered.

1.5.2 When sudden cyclic changes in tempe rature are apt to occur in normal operation wrth only minor pressure fluctuations, the design is to be governed by the highest probable operating temperature and corresponding pressure.

1.6 Redundancy

1.6.1 Redundancy is the ability of a system or a component thereof to maintain or restore its function when one failure has occurred. This can be achieved for instance by installation of more units or alternative means for performing lhe function.

1.7 Valves and cocks

1.7.1 All the valves and cocks are to be so designed and constructed so trial the varve covers or glands will not slacken up when ihe valves are operated.

1.7.2 All ihe valves are to be designed to close with tight hand (clockwise when facing the end of the stem) motion of the wheel of the valve.

1.7.3. All the valves and cocks are to be fitted in places where they are easiry accessible at all times and are to be fitted wrth legible nameplates indicating their function in the system and their installation rs to be such that it can be readily observed that they are open or closed.

1.7.4 All the valves and cocks fitted with remote control are to be provided with local manual control independent of the remote operating mechanism. The operation of the local control Is not to render the remote control system inoperable.

1.7.5 The valves, cocks and other fittings which are attached directlylo plating, which is required to be of watertight construction, are to be secured to the plating by means of studs screwed into the plating and not by bolts passing through clearance holes. Alternatively the studs may be welded to the plating.

1.8 Vesselside fittings (other than sanitary discharges and scuppers)

1.8.1. All sea inlet and overboard discharge valves are to be fitted in either of the following ways:

a) directly on the shell plating;
b) to the plating of fabricated steel water boxes of rigid construction integral with the vessel's plating;
c) to short, rigid distance pieces welded to lhe shell plating.

1.8.2 All valves and cocks fitted directly to the shell plating are to have spigots extending through the plaling. These spigot on valves may however be omitted if valves are fitted on pads which themselves form spigots in way of plating.

1.8.3 Valves and cocks are to be attached to the shell plating by bolts tapped into the plating and fitted with countersunk heads, or by studs screwed into heavy steel pads fitted to lhe plating. The stud holes are not to penetrate lhe pad plating.

1.8.4 Vessel side valves and fittings, if made of steel or material with low corrosion resistance, are to be suitably proteciec against wastage.

1.8.5 Gratings are to be fitted at all openings in vessel's side (or inlet of seawater. The net area through the gratings is to be at least twice the area of the valves connected to the opening.

1.8.6 The scannings of valves and valve stools fitted with stream, or compressed air clearing connections are to be suitable for the maximum

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pressure to which the valves and stools may be subjected.

1.9 Piping installation

1.9.1 Heavy pipes and valves are to be so supported that their weight is not taken up by connected pumps and fittings.

1.9.2 Support of the pipes is to be such that detrimental vibrations do not arise in the system.

1.9.3 Where pipes are carried through watertight bulkheads or tank lops, means are to be made to ensure the integrity of the watertighlness of the compartment.

1.9.4 As far as possible, installation of pipes for water, oil, or steam, is to be avoided near electric switchboards. If this is impracticable, all the joints in pipe line and valves are to be at a safe distance from the switchboards and shielded to prevent damage to switchboard.

1.9.5 Provision is to be made to lake care of expansion or contraction stresses in pipes due to temperature stresses or working of the hull.

1.9.6 Expansion pieces of approved type, made of oil resistant fe-inforced, rubber or other approved material may be used in circulating water systems in machinery spaces.

1.9.7 Ail piping systems, where a pressure greater than the designed pressure could be developed, are to be protected by suitable relief valves.

1.9.8 All pipes, situated in cargo spaces, fish holds or other spaces, where they can be damaged mechanically, are to be suitably protected.

1.9.9 All pipes which pass through chambers intended for the carriage or storage of refrigerated cargo are to be well insulated. In case the temperature of (he chamber is below OC the pipes are to be insulated from Ihe vessel's structure also, except at positions where the temperature of Ihe vessel's structure is always above 0°C and is controlled by outside temperature.

Air refreshing pipes leading to and from refrigerated chambers need not be insulated from the vessel's structure.

Section 2
Bilge and Ballast Piping System

2.1 General

2.1.1 All vessels are to be provided with necessary pumps, suclion and discharge piping and means of drainage so arranged that any compartment can be pumped out effectively, when the vessel is on an even keel and is either upright or has a list of not more than 5 degrees, through at least one suction, except from machinery spaces where at least two suctions are required, one of which is to be a branch bilge suction and the other is to be a direct bilge suction. Wing suctions will, generally, be necessary (or this purpose, except for short narrow compartments, where a single suction may be sufficient.

2.1.2 All passenger vessels are to be provided with an efficient bilge pumping plant capable of pumping from and draining any watertight compartment under all practicable conditions after a casualty whether Ihe vessel is upright or listed.

2.1.3. Attention is drawn to any relevant statutory requirements of the National Authority of the country in which the vessel is to be registered.

2.2. Drainage of cargo holds

2.2.1. In vessels having only one hold, and Ihis over 30 [m] in length, bilge suctions are to be provided in the fore and after sections of the hold.

2.2.2. In vessels having a flat bottom with breadth exceeding 5 [m], bilge suctions are to be lilted at the wings.

2.2.3. Where dose ceilings or continuous gusset plates are fitted over Ihe bilges, arrangements are to be made whereby the water in the hold may find its way to the suction pipes.

2.2.4. In vessels fitted with double bottoms, suitably located bilge wells are to be provided.

2.3. Drainage from fore and aft peaks

2.3.1. Where the peaks are used as tanks, a power pump suction is to be led to each tank.

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except in case of small lanks (generally not exceeding 2 [m^3] used Tor the carriage of domestic fresh water where hand pumps may be used.

2.3.2 The peaks may be drained by hand pumps provided the peaks are not used as tanks and they are not connected to bilge main. The suction lift is to be wellwilhin the capacity of lhe hand pumps and is not to exceed 7.3 [m].

The after peak may be drained by means of a self closing cock situated in a well lighted and accessible position, and draining Into engine room or tunnel.

2.3.3 The collision bulkhead is not to be pierced below the bulkhead deck by more than one pipe for dealing with the contents inside the fore peak tank except as permitted in 2.3.4. The pipe is to be provided with a screw down.varve capable of being operated from above the bulkhead deck and ihe chest of the valve is to be secured to lhe collision bulkhead inside the tank except as peimitted by 2.3.5. An indicator is to be provided to indicate whether the valve is open or shut.

2.3.4. In vessels, other than passenger vessels, where the forepeak is divided into two compartments, the collision bulkhead may be pierced by two pipes, i.e. one for each compartment and fitted as in 2.3.3.

2.3.5. In vessels other than passenger vessels, the valve required by 2.3.3 may be fitted on the after side of the collision bulkhead, provided the valve is readily accessible at all time and is not subject to mechanical damage.

2.4 Drainage from tanks, cofferdams and void spaces..

2.4.1 All the tanks except self-draining tanks, whether for water ballast, oil fuel, liquid cargoes, etc. are to be provided with suction pipes led to suitable power pumps. The pumping plant is to be so arranged that any water or liquid within any compartment of the vessel can be pumped out through at least one suction, when the vessel is on an even keel and is either upright or has a list of not more than 5 degrees.

2.4.2. Where the length of the ballast lank exceeds 30 [m], an additional suction is to be provided at the forward end or the tank. Where the width of the tank is unusually large, suctions near the centreline in addition to wing suctions may be required.

2.4.3. Suction pipes from the cofferdams and void spaces are to be led to the main biige line.

2.4.4 In vessels where deep lanks may be used for either water ballast or dry cargo, provision is to be made for blanking the water ballast suction and filling when the tank is being used for carrying cargo and for blanking the bilge line when the tank is being used for carriage of water ballast.

2.5 Drainage from spaces above fore and after peaks and above machinery spaces

2.5.1 Provision is to be made for the drainage of chain locker and watertight compartments above the foie peak tank by hand or power pump suctions.

2.5.2 Steering gear compartments or othersmall enclosed spaces situated above the after peak tank are to be provided wilh suitable means of drainage, either by hand -or power bilge suctions.

2.5.3 If lhe compartments referred to in 2.5.2 are adequately isolated from lhe adjacent 'tween decks, they may be drained by scuppers of not less than 38 [mm] bore, discharging into the tunnel (or machinery spaces in case of vessels wilh machinery aft) and titled wilh self-closing cocks situated in well lighted and visible positions. These arrangements are not applicable to passenger vessels unless they are specially approved in relation to subdivision considerations.

2.5.4. Accommodation spaces which overhang machinery spaces may also be drained as in 2.5.3.

2.6 Drainage from machinery spaces

2.6.1 The bilge drainage arrangements for machinery spaces are to be in accordance with the requirements of 2.1.

2.6.2 In vessels in which the propelling machinery is situated at the after end of the vessel, it will generally be necessary for the bikje suctions to befitted in the forward wings as well as in the after end of the machinery space, but each case will be deall with according to the size and structural arrangements of the compartment.

2.6.3 Where lhe machinery space divided into watertight compartments, ihe drainage system for all compartments except for main engine room is to be same as for cargo holds except that one direct bilge suction from each watertight compartment would also be required.

2.7 Sizes of bilge suctions

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2.7.1 The internal diameter of the bilge pipes is not to be less than lhat found by the following formula to the nearest 5 [mm] commercial size available:

a) $d_m = 1.5\sqrt{L(B+D)} + 25[mm]$

b) $d_m = 2.0\sqrt{C(B+D)} + 25[m]$

where.

d_m = internal diameter of bilge main [mm]:

d_b = internal diameter of branch biige [mm];

L = Rule length of vessel [m);

B = Moulded breadth of vessel [m];

C = Length of lhe compartment [m];

D = Moulded depth to bulkhead deck [m].

2.7.2 In any case, bilge main suction line and branch bilge suction line diamelers are not to be less than 40 [mm] and the diameter otthe main bilge line is not be less than lhat of the branch bilge line.

2.7.3. The internal diameter of lhe direct bilge suction is not to have less than the main bilge line when connected to a power pump and not less than branch bilge suction when connected to a hand pump.

2.7.4. In oil tankers and similar vessels, where the engine room pumps do not deal with bilge drainage outside the machinery spaces, the rule diameter of the bilge main may be reduced provided the proposed cross-sectional area of the bilge main is not less than twice that required for the branch bilge suction in machinery spaces.

2.7.5. The area of each branch pipe connecting the bilge main to a distribution chest is to be not - less than the sum of the areas required by lhe rules for the two largest branch bilge suction pipes connected to lhat chest, but need not be greaier than that required for the main bilge line.

2.8 Bilge pumps and ejectors

2.8.1. In vessels with main propulsion engines up to 220 [kW] (300 shp), at least one power bilge is to be provided which may be driven by the main engines. In addition hand pump suctions are to be fitted. In vessels where the main propulsion engines power exceeds 220 [kW] (300 shp), at least two power bilge pumps are to be provided and at least one of which is to be independently driven. See also 2.11 for requirements regarding passenger vessels.

2.8.2 The capacity of lhe bilge pump may be found by lhe following formula:

$$Q = 5.75 \times 10^{-3} \times d^2 \ [m^3/hour]$$

where,

Q = capacity of pump [m^3/hour]

d = rule diameter of bilge main [mm).

2.8.3 In vessels, other than passenger vessels, where one bilge pump is of slightly less than rule capacity, the deficiency may be made good by an excess capacity of the other pump. In general this deficiency is to be limited to 30 percenl.

2.8.4 An ejector in conjunction with a sea water pump may be accepted as "a substitute for independent power bilge pump. This however, is not acceplable on passenger vessels.

2.9 Pump types

2.9.1 The bilge pumps required by the rules are to be of self-priming type, unless,an approved priming system is provided for these vessels.

2.9.2 General service pumps and ballast pumps may be accepted as independent power bilgepumps provided:

a) Their capacity is adequate and accordance with 2.8.2;
b) These pumps, togelherwilh lhe pipelines to which lhey are connected, are fitted with necessary devices to ensure that there is no risk of entry of water or oil fuel in the holds or machinery spaces.

2.10 Bilge piping arrangements and fittings

2.10.1 Bilge pipes are not, as far as possible, to pass through double bottom tanks. If un-avoidable such bilge pipes are to be ol heavy gauge, with welded joints or heavy flanged joints and are to be tested after fitting to the same pressure as the tanks through which lhey pass.

2.10.2. The parts of bilge pipes passing through deep tanks, intended to carry water ballast,fresh water, liquid cargo or fuel oil are normally to be contained in a pipe tunnel, but where this is nol done, the pipes are to be of heavy gauge with welded or heavy flange joints. The open

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ends of such pipes are to be fitted with nonretum valves. The pipes are to be tested, after fining, to a pressure of not less than the maximum head to which the tanks may be subjected.

2.10.3 Expansion bends, not glands, are to be fitted to pipes passing through double bottom tanks or deep tanks.

2.10.4 The inladness of the machinery spaces, bulkheads and of lunnet plating is not to be impaired by fitting of scuppers discharging Into machinery spaces or tunnel from adjacent compartments which are situated below the bulkhead deck. These scuppers may, however, be led into a strongly built scupper drain tank situated in the machinery space or tunnel but closed to these spaces and drained by means of a suction of appropriate size led from the main bilge line through a screw-down non-return valve.

a) The scupper tank air pipe is to be led above lhe bulkhead deck and provision is to be made for ascertaining the level ol the water in the tank:
b) Where one lank is used for the drainage of several watertight compartments the scupper pipes are to be provided with screw-down non-return valves.

2.10.5 No drain valve or cock is to be fitted to the collision bulkhead. Drain valves or cocks are not to be fitted to other watertight bulkheads if alternative means of drainage are practicable. These arrangements are not permissible in passenger vessels.

2.10.6 Where diain valves or cocks are fitted to bulkheads other, than collision bulkhead, as permitted by 2.10,5, the drain valves or cocks are to be at all limes readily accessible and are to be capable of being shut off from positions above the bulkhead deck. Indicators are to be provided to showwhether the drains are open or shut.

2.10.7 Bilge pipes which are required for draining cargo or machinery spaces are to be entirely distinct from sea inlet pipes or from pipes which may be used for filling or emptying spaces where water or oil is carried. Thrs does not, however, exclude a bilge ejection connection, a connecting pipe from a pump to its suction valve chest, or a deep tank suction pipe suitably connected through a change-over device to bilge, ballast or oil line.

2.10.8 The arrangement of pumps, valves and piping is to be such that any pump could be opened up for overhaul and repairs wilhout affecting the operation of the other pumps.

2.10.9 The arrangement of valves, pumps, cocks and their pipe connections is to be such as to prevent the possibility of placing one watertight compartment in communication with another, or of cargo spaces, machinery spaces or other dry spaces corning in communication wrth the sea or the tanks. For this purpose the bilge suction, pipe of any pump also having sea suction is to be fitted with a non-return valve which cannot permit communication between the bilges and the sea or the compartments In use as tanks.

2.10.10 Screw-down non-return valves are to be provided in the following fittings:

a) Bilge distribution chest valves;
b) Direct bilge suction and bilge pump connection to main line;
c) Bilge suction hose connections on the pumps or on the main line;
d) Emergency bilge suctions.

2.10.11 Bilge suction pipes from machinery spaces and shaft tunnel, except emergency bilge suction, are to be led from easily accessible mud boxes fitted with straight tail pipes to the bilges. The open ends of the tail pipes are not to be fitted with strum boxes. The mud boxes are to be provided with covers which can be easily opened and closed for cleaning purposes.

2.10.12 Strum boxes are to be fitted to the open ends of bilge suction pipes from the cargo holds. The diameter of holes from these strum boxes is not to be more than 10 [mm] and the total area of the holes is not to be less than twice the area of the pipes.

2.10.13 Where access manholes to bilge wells are necessary, they are to be filled as near to the suction strums as practicable.

2.10.14 Adequate distance is to be provided between lhe open ends of suction pipes and bilge well bottom io permit adequate *anc* cash flow of water and to facilitate cleaning.

2.10.15 All the valves, cocks and mud boxes are to be located in easily accessible positions above or at the same level as the floor plates. Where this is unavoidable, they may be fitted immediately below the floor plates provided the floor plates are capable of being opened and

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closed easily and suitable name plates are fitted indicating the fittings below.

2.10.16 Where relief valves are fitted to pumps having sea connections, these valves are to be fitted in readily visible positions above the platform. The arrangement is to be such that any discharge from the relief valves will also be readily visible.

2.10.17 Where non-return valves are fitted to the open ends of bilge suction pipes in cargo holds in order to decrease the risk of flooding, they are to be of an approved type which does not offer undue obstruction to the flow of water.

2.11 Additional requirements for passenger vessels

2.11.1 Where practicable, the power bilge pumps are to be placed in watertight compartments so arranged or situated that these compartments will not readily be flooded by the same damage. If the engines and boilers are in two or more watertight compartments, the pumps available for bilge service are to be distributed throughout these compartments as far as is possible.

2.11.2 In passenger vessels the arrangements are to be such that at least one power pump is available for use in all ordinary circumstances in which a vessel may be flooded at sea. This requirement will be satisfied if:

a) One of the required pumps is an emergency pump of reliable submersible type having a source of power situated above the bulkhead deck: OR
b) The pumps and their sources of power are so disposed throughout the length of the vessel thai under any condition of flooding which the vessel is required by statutory requirements to withstand, at least one pump in undamaged compartment will be available.

2.11.3 Provisionis to be made to prevent the compartment served by any bilge suction pipe being flooded in the event of the pipe being severed, or otherwise damaged by collision or grounding in any other compartment. For this purpose where the pipe is at any part srtualed nearer Ihe side of the vessel than one-fifth the breadth ot the vessel (measured at right angles to the centreline at the level of the deepest subdivision loadline), or in a duct keel, a non-return valve is to be fitted to ihe pipe in the compartment containing the open end.

2.11.4 All the distribution boxes, cocks and valves in connection with the bilge pumping arrangements are to be in positions which are accessible at all times under ordinary circumstances. They are to be so arranged that, in the event of flooding, one of the bilge pumps may be operative on any compartment, in addition damage to a pump or its pipe connecting to the bilge main outboard of a line drawn at one-fifth of the breadth of the vessel is not to put the bilge system out of action. If there is only one system of pipes common to all the pumps, the necessary cocks or valves for controlling the bilge suctions must be capable of being operated from above the bulkhead deck. Where in addition to the main bilge pumping system an emergency bilge pumping system is provided, its is to be independent of the main system and so arranged that a pump is capable of operating on any compartment under flooding conditions, in that case only the cocks and valves necessary for the operation of the emergency system need be capable of being operated from above the bulkhead deck.

2.11.5 All valves and cocks mentioned in 2.11.4 which can be operated from above We bulkhead deck shall have their controls at their place of operation dearly marked and provided with means to indicate whether they are open or closed.

2.12 Ballast system

2.12.1 Provision is to be made for ballasting and deballasting all the ballast tanks by pipe lines which are entirely separate and distinct from pipe lines used for bilging.

2.12:2. Where the length of the ballast tanks exceeds 30 [m], an additional suction is to be provided at the forward end of the tanks. Where the width of the tank ts unusually large, suction near the centreline in addition to wing suctions may be required.

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Section 3
Air and Sounding Piping Systems

3.1 General

3.1.1 Reference to oil in this Section is to be taken to mean oil which has a flash point of 60°C or above (closed cup test).

3.1.2 The portions of vent, overflow and sounding pipes fitted above the weather deck are to be of steel.

3.1.3 Name plates are to be affixed to the upper ends of all vent and sounding pipes.

3.2 Air pipes

3.2.1 Vent pipes are to be fitted to all tanks, cofferdams, tunnels and other compartments which are not fitted with alternative ventilation arrangements.

3.2.2 The vent pipes are to be fitted at the opposite end ofthelankto which the filling pipes are placed and/or at the highest part of the tank and are to be of the self draining type. Where the tank top is of unusual or irregular profile, special consideration will be given to the number and positions of the vent pipes.

3.2.3 Tanks provided with anodes for cathodic piotection are to be provided with vent pipes at forward and aft ends.

3.2.4 Vent pipes to double bottom tanks, deep tanks extending to lhe shell plating or tanks which can be run up from the sea and sea chests are to be run up from the sea and sea chests are to be led above the bulkhead deck.

3.2.5 Vent pipes to oil fuel and cargo oil tanks, cofferdams, all tanks which can be pumped up. shaft tunnels and pipe tunnels are to be led above the bulkhead deck and to open air.

3.2.6 Vent pipes from lubricating oil storage tanks may terminate in the machinery spaces, provided that the open ends are so situated that issuing oil cannot come into contact with electrical equipment or heated surfaces.

3.2.7 The open ends of vent pipes to oil fuel and cargo oil tanks are to be situated where no danger will be incurred from issuing oil or vapour when the lank is being filled.

3.2.8 For details regarding height and closing devices for vent pipes see Pt.3, Ch.11.

3.2.9 The open ends of vent pipes to oil fuel, cargo oil and ballast tanks fitted with anodes for cathodic protection, are to be fitted with a wire gauze diaphiagm of incorrodible material which can be readily removed lot cleaning. The clear area through the wire gauze is to be at least equal to the area of lhe vent pipe.

3.2.10 In the case of all tanks which can be pumped up either by vessel's pumps or by shore pumps through a filling main, the total cross-sectional area of the vent pipes to each tank, or of the overflow pipes where an overflow system is provided, is to be not less than 25 per cent greater than the effective area of the respective filling pipes.

3.3 Sounding arrangements

3.3.1 All tanks, cofferdams and pipe tunnels are to be provided with sounding pipes or other approved means for ascertaining the level of liquid in the tanks. Bilges of compartments which are not at all times readily accessible are to be provided with sounding pipes. The soundings are to be taken as near the suction pipes as practicable.

3.3.2 Where gauge glasses are used for indicating the level of liquid in tanks containing lubricating oil, oil fuel or other flammable liquid. the glasses are to be of heat resisting quality. adequately supported, protected from mechanical damage and fitted with self-closing valves al lhe lower ends and at the top ends if these are connected to lhe tanks below the maximum liquid level.

3.3.3. Except as permitted by 3.3.4 sounding bpipes are to be led to positions above the bulkhead deck which are at all times accessible and in the case of oil fuel tanks, cargo oil tanks and lubricating oil tanks. lhe sounding pipes are to be led to safe positions on the open deck.

3.3.4. Short sounding pipes may be fitted to double botiom lanks and cofferdams in shaft tunnels and machinery spaces provided the pipes are readily accessible. Short sounding pipes to oil fuel tanks, cargo oil tanks and lubricating oil tanks are not to be placed in the vicinity of boilers, preheateis, heated surfaces, electric generators or motors with commutator or collector rings or electric appliances which are not totally enclosed. The short sounding pipes are to be arranged in such a way that overflow

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or oil spray will not reach any of machinery components mentioned above. The short sounding pipes are to be Titled with self-closing cocks having cylindrical plugs with weight loaded levers permanently attached and with pedals for opening or other approved arrangements. Short sounding pipes to tanks not intended Tor oil are to be fitted with screw caps attached by chain to the pipe or with shut off cocks.

3.3.5 In passenger vessels, short sounding are permrssible only for sounding pipes cofferdams and double bottom tanks situated in the machinery space and are in all cases to be fitted with self closing cocks as described in 3.3.4.

3.3.6. Striking plates of adequate thickness and size are to be fitted under open ended sounding pipes. Where slotted pipes having closed ends ate employed, the closing plugs are to be of substantial construction.

3.3.7. The upper ends of all sounding pipes are to be provided with efficient closing devices. The sounding pipes are to be arranged to be as straight as practicable, and if curved, the curvature is to be large enough to permit easy passage of sounding rod/chain.

Section 4
Fuel Oil Systems

4.1 General

4.1.1 Oil fuel for machinery and boilers is normally to have a flash point not lower than 60°C (closed cup lest). For emergency generator engines, the oil fuel is to have a flash point not lower than 43°C (closed cup test).

4.1.2 Fuels with flash point lower than 60°C may be used in vessels intended for service restricted to geographical limits where it can be ensured that the temperature of the machinery and boiler spaces will always be 10°C below the flash point of the fuel. In such cases safety precautions and the arrangements for storage and pumping will be specially considered. However, the flash poinl of the fuel is not to be less than 43^0C unless specially approved.

4.2. Oil fuel tanks

4.2.1 Oil fuel tanks are to be separated from fresh water and lubricating oil tanks by means of cofferdams.

4.2.2. Oil fuel tanks are not to be located directly above the highly heated surfaces.

4 3 Oil fuel piping

4.3.1 Oil fuel pressure pipes are to be led. where practicable, remote from heated surfaces and electrical appliances, but where this is impracticable the pipes are to have a minimum number of joints and are to be led in weii lighted and readily visible positions.

4.3.2 Transfer, suction and other low pressure oil pipes and all pipes passing through oil storage tanks are to be made of cast iron or steel, having flanged joints suitable for a working pressure of not less than 0.69 [N/mm^2]. The flanges are to be machined and the jointing material is to be impervious to oil. Where the pipes are 25 [mm] bore or less, Iheyjnay be seamless copper, or copper alloy, except those which pass through storage tanks.

4.3.3 Pipes in connection with compartments storing fresh water are to be separate and distinct from any pipes which may be used for oil or oily water and are not to be led through tanks which contain oil, nor are oil pipes to be led through fresh water tanks.

4.3.4 Pipes conveying vegetable oils or similar cargo oils are not to be led through oil fuel tanks, nor are oil fuel pipes to be led through tanks containing such.cargoes.

4.3.5 In passenger, vessels, provision is to be made for the transfer of oil fuel from any oil fuel storage or settling tank to any other oil fuel storage tank.

4.4 Arrangement of valves, cocks, pumps and fittings

4.4.1 The oil fuel and pumping piping arrangements are to be distinct from other pumping systems as far as practicable and the means provided for preventing dangerous interconnection in service are to be thoroughly effective.

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4.4.2 All valves and cocks forming part of the oil fuel installation are to be capable of being controlled from readily accessible positions which, in the machinery spaces are to be above the working platform.

4.4.3 Every oil fuel suction pipe from a double bottom tank is to be fitted with a valve or a cock.

4.4.4 For oil fuel tanks which are situated above the double bottom tanks, the inlet and outlet, pipes which are connected to the tank at a point lower than the outlet of the overflow pipe or below the top of the tanks without an overflow pipe, are to be fitted with shut off valves located on the tank itself.

4.4.5. In the machinery spaces valves, mentioned in 4.4.4, are to be capable of being closed locally and from positions outside these spaces which will always be accessible in the event of fire occurring in these spaces. Instructions for closing the valves are to be indicated at the valves and at the remote control positions.

4.4.6 Settling tanks are to be provided with means for draining water from the bottom of the tanks. If the settling- tanks are not provided, the oil fuel bunkers or daily service tanks are to be fitted with water drains.

Open drains for removing water from oil tanks are to be fitted with valves or cocks of self-closing type and suitable provision is to be made for collecting the oily discharge.

4.4.7 Where a power driven pump is necessary for transferring oil fuel, a stand by pump is to be provided and connected ready for use, or. alternatively, emergency connections may be made to another suitable power driven pump.

4.4.8 All pumps which are capable of developing a pressure exceeding the design pressure of the system are to be provided with relief valves. Each relief valve is to be in close circuit, i.e. arranged to discharge back to the suction side of the pump and to effectively limit the pump discharge pressure to the design pressure of the system.

4.4.9 Valves or cocks are to be interposed between the pumps on the suction and discharge pipes in order that any pump may be shut off for opening up and overhaul.

4.4.10. Drip trays are to be fitted under all oil fuel appliances which are required to be opened up frequently for cleaning or adjustment.

4.5 Filling arrangements

4.5.1 The bunkering of the vessel is to be carried out through a permanently fitted pipeline, provided with the required fittings and ensuring fuel delivery to all storage tanks. The open end of the fitting pipe Is to be led to the lank bottom.

In passenger vessels fuel bunkering slalions are to be isolated from other spaces and are to be efficiently drained and ventilated.

4.5.2 Provision is to be made against over pressure in the filling pipes, and any relief valve fitted for this purpose is to be discharge In to an overflow tank or other safe position.

4.6 Oil fuel burning arrangements

4.6.1. 'Fitters are to be Titled in the supply lines to the main and auxiliary machinery. For non-redundant units for essential services, it must be possible to clean the filters without stopping the unit or reducing the supply of filtered oil to the unit.

For auxiliary engines one single oil fuel filter for each engine may be accepted.

4.6.2 Where an oil fuel booster pump is fitted, which is essential to the operation of the main engine(s), a standby pump is to be provided. The standby pump is to be connected ready for immediate use but where two or more main engines are fitted, each with its own pump, a complete spare pump may be accepted provided that it readily accessible and can be easily installed.

4.6.3 Where pumps are provided for fuel valve cooling, the arrangements are to be as in 4.6.2.

4.7 Remote slop of oil fuel pumps and fans

4.7.1 Emergency stop of power supply to the following pumps and fans is to be arranged from a central place outside the engine and boiler room:

- oil fuel transfer pump;
- oil fuel booster pump:
- nozzle cooling pumps when oil fuel is used as coolant;
- oil fuel purifiers;
- pumps for oil-burning installalions;
- fans for ventilation of engine rooms.

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Section 5

Engine Cooling Water Systems

5.1 General

5.1.1 Centrifugal cooling water pumps are to be installed as low as possible in the vessel.

5.2 Cooling water main supply

5.2.1 Provision is to be made for an adequate supply of cooling water to the main propelling machinery and essential auxiliary engines, also to lubricating oil and fresh water coolers, where these coolers are fitted. The cooling water pump(s) may be worked from the engines or be driven independently.

5.3 Cooling water standby supply

5.3.1 Provision is also [o be made for a separate supply of cooling water from a suitable independent pump of adequate capacity.

5.3.2. The following arrangements are acceptable, depending on the purpose for which the cooling waler is intended:

a) Where only one main engine, with power exceeding 370 [kW] (500 shp), is fitted, the standby pump is to be connected ready for immediate use:

b) Where more than one main engine is fitted, each with its own pump, a complete spare pump of each type may be accepted;

c) Where fresh water cooling is employed for main/auxiliary engines, a standby means of cooling need not be fitted if there are suitable emergency connections from a salt waler system;

d) Where each auxiliary is filled with a cooling water pump, standby means of cooling need not be provided for auxiliaries. Where, however a group of auxiliaries is supplied with cooling water from a common system, a standby cooling water pump is to be provided for this system. The pump is to be connected ready for immediate use and maybe a suitable general service pump.

5.3.3 When selecting a pump for standby purposes, consideration is to be given to the maximum pressure which it can develop if the overboard discharge valve is partly or fully closed and, when necessary, condenser doors, waler boxes, etc. are to be prelected by an approved device against inadvertent over pressure.

5.4 Relief valves on cooling water pumps

5.4.1 Where cooling waler pumps can develop a pressure head greater than the design pressure of the system, they are to be provided wilh relief valves on the pump discharge to effectively limit the pump discharge pressure to the design pressure of the system.

5.5 Sea inlets for cooling water pumps

5.5.1 Sea-water cooling systems for main and auxiliary machinery are to be connected to at least two cooling water inlets, preferably on opposite sides of the vessel.

5.5.2. Where sea water is used for the direct cooling of main engines and auxiliaries, the sen water suction pipes are to be provided with strainers which can be cleaned without interrupting the cooling water supply.

Section 6

Lubricating Oil Piping Systems

6.1 General

6.1.1. Lubricating oil systems are to be entirely separated from other systems. This requirement, however, does not apply to hydraulic governing and maneuvering systems for main and auxiliary engines.

6.1.2 Lubricating oil tanks are to be separated from other tanks containing water, fuel oil or cargo oil by means of cofferdams.

6.2 Pumps

6.2.1 Where lubricating oil for the main engine(s) is circulated under pressure, a

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standby lubricating oil pump is to be provided where one main engine is titled and the output of the engine exceeds 370 [kW) (500 shp).

6.2.2 Satisfactory lubrication of the engines is to be ensured while starting and maneuvering.

6.2.3 Similar provisions to those of 6.2.1 and 6.2.2 are to be made where separate lubricating oil systems are employed for piston cooling, reduction gearing, oil operated couplings and controllable "pitch propellers, unless approved alternative arrangements are provided. Where the oil glands for stem tubes are provided with oil circulating pump, and the continuous running of this pump is necessary during normal operation, then a standby pump for this purpose is to be provided.

6.2.4 Independently driven rotary type pumps are to be fitted with non-return valves on the discharge side of the pumps.

6.2.4 A relief valve in close circuit is to be Tilted on the pump discharge it Ihe pump is capable of developing a pressure exceeding the design pressure of the system, the relief valve is to effectively limit the pump discharge pressure to the design pressure of the system.

6.3 Control of pumps and alarms

6.3.1 The power supply, to all independently driven lubricating oil pumps is to be capable of being stopped from a position outside the space which will always be accessible in the event of fire occurring in the compartment in which they are situated, as well as from the compartment itself.

6.3.2 All main and auxiliary engines intended Tor essential services are to be provided with means of indicating the lubricating oil pressure supply to them. Where such engines and turbines are of more than 75 [kW] (100 shp), audible and visual alarms are to be Titled to given warning of an appreciable reduction in pressure of the lubricating oil supply. Further, these alarms are to be actuated from the outlet side of any restrictions, such as Tillers, coolers, etc.

6.4 Filters

6.4.1 In systems, where lubricating oil is circulated under pressure, provision is to be made for efficient filtration of the oil. For non-redundant units, for essential services, it must be possible to clean the filters without stopping the unit or reducing the supply of tillered oil to the units.

6.5 Valves and cocks onlubricating oil tanks

6.5.1 Outlet varves, and cocks on lubricating oil service tanks, other than double bottom tanks, situated in machinery spaces are to be capable of being closed locally and from positions outside the space which will always be accessible in the event of fire occurring in these spaces. Remote controls need only be titled to outlet valves and cocks which are open in normal service and are nol required for other outlets such as Ihose on storage tanks.

Section 7
Engine Exhaust Gas Piping Systems

7.1 General

7.1.1 Where the surface temperature'of the exhaust pipes and silencer may exceed 220°C, they are to be water cooled or efficiently lagged.

7.1.2 Where lagging covering the exhaust piping including flanges, is oil-absorbing or may permit penetration of oil, the lagging is to be encased in sheet metal or equivalent. In locations where the Surveyor is satisfied that oil impingement could not occur, Ihe lagging need not be encased.

7.1.3 Exhaust pipes which are led overboard near the waterline are to be protected against the possibility of water finding its way inboard. Where the exhaust is cooled by water spray, the exhaust pipes are to be self-draining overboard.

7.1.4 Exhaust pipes of two or moie engines are not to be connected together, but are to be led separately to the atmosphere unless arranged to prevent the return of gases to an idle engine.

7.1.5. In two-stroke engines fitted with exhaust gas turbo-chargers which operate on the impulse systems, piovision is to be made to prevent broken piston rings entering the turbine casing and causing damage to blades and nozzle rings.

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Section 8

Pumping and Piping Systems for vessels not Fitted with Propelling Machinery

8.1 Scope

8.1.1 Following requirements are applicable to vessels not Pitted with propelling machinery.

8.2 Vessels without auxiliary power

8.2.1 Hand pumps are to be fitted in number and position, as may be required for the efficient drainage of the vessel.

8.2.2 In general, one hand pump is to be provided for each compartment. Alternatively, two pumps connected to a bilge main, having at least one branch to each compartment are to be provided through non-return valves.

8.2.3 The hand pumps are to be capable of being worked from the upper deck or from positions above the load waterline which are at all times readily accessible. The suction lift is not to exceed 7.3 [m] and is to be well wiihin the capacity of the pump.

8.2.4 The pump capacity is to be based upon the diameter of the suction pipe required for the compartment and as determined in Sec.2.

8.3 Vessels with auxiliary power

8.3.1 In vessels in which auxiliary power is available on board, power pump suctions are to be provided for dealing with the drainage of tanks and of the bilges of the principal compartments.

8.3.2 The pumping arrangements are to be as required for self propelled vessels; so far as these requirements are applicable.

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Chapter 4

Prime Movers and Propulsion Shafting Systems

Contents

Section	
1	General
2	Main Propulsion shafting
3	Propellers
4	Vibrations and Alignment

Section – 1

General

1.1 General

1.1.1 The requirements of this Chapter are applicable to all vessels but may be modified for vessels intended for special services.

1.1.2 Prime movers of electric generalors of less than 50 [kW] Capacity, supplying power for lighting loads.only, when the vessel is in harbour, need nol be built under survey.

1.1.3 Atlenlion is drawn to any relevant statutory requirements of lhe counlry in which the vessel is to be registered.

1.1.4 Power transmission systems not specified in this Chapter will be specialty considered.

1.2 Materials

1.2.1 Materials intended for the main parts of the prime movers and power transmission systems are to be manufactured and tested in accordance wilh the requirements of Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels.

1.3 Primemovers and reduction gearing

1.3.1 Primemovers and reduction gearings are to be designed, manufactured and tested in accordance with the requirements ol Rules and Regulalrons For the Construction & Classification of Steel Vessels.

1.4 Turning Gear

1.4.1 Arrangements are to be provided to turn the primemovef of main propulsion systems and auxiliary drives.

Section 2

Main Propulsion Shafting

2.1 Scope

2.1.1 The requirements of this Section relale, in particular, to formulae for determining the diameters of shafting for main propulsion installations, but requirements for couplings, coupling bolts, keys, keyways. slernbushes and associated components are also included. The diameter of shafting as calculated, may require to be modified as a result of alignment considerations and vibration characteristics (See Sec.8) or the inclusion of stress raisers, other than those contained in this section.

2.2 Plans and particulars

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2.2.1 The following plans, in triplicate, together with the necessary particulars of the machinery, including the maximum power and revolutions per minute, are to be submitted for approval before the work is commenced:

- Final gear shaft:
- Thrust shaft;
- Intermediate shafting;
- Tube shaft, where applicable;
- Tail shaft;
- Slern bush.

2.2.2 The specified minimum tensile strength of each shaft is to be stated.

2.2.3 A shafting arrangement plan indicating the relative position of the main engines, fly wheel, flexible coupling, gearing, thrust block, line shafting and bearings, stern lube. 'A' brackets and propeller, as applicable, is to be submitted for information,

2.3 Materials for shafting

2.3.1 The materials are to comply with the relevant requirements of Ch,5. Pt.2. Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels. The specified minimum tensile strength of forgings is to be selected within the following general limits :

a) Carbon and carbon-manganesesteel - 400-600 [N/mm^2]

b) Alloy steels - Not exceeding 800 [N/mm^2]

2.3.2 Ultrasonic tests are required on shaft forgings where the diameter is 250 [mm] or greater.

2.4 Intermediate and thrust shafts

2.4.1 The diameter, d. of the shaft is to be not less than determined by the following formula :

$$d = 103.5ka_3\sqrt[3]{\frac{410P}{(U+160)R}}[mm]$$

Where,

a = 0.95 for turbine installation, electric propulasion installations and oil engine installations with slip type couplings.

= 1.0 for other oil engine installations;

k = 1.0 for shafts with Integral coupling flanges complying with 2.7 or shrink fit couplings;

= 1.10 for shafts with keyways, where the fillet radii in the transverse section of the bottom of the keyway are not to be less than 0.0125 d; after a length of 0.2 d from the end of lhe keyway, the shaft diameter may be reduced to the diameter calculated with k = 1.0;

= 1.10 for shafts with transverse or radial holes. where the diameter of the hole is not greater than 0.3 d;

= 1.20 for shafts with longitudinal slots having a length of not more than 1.4 d and a width of not more than 0.2 d, where d is calculated with k=1.0;

U = Specified minimum tensile strength of the material [N/mm^2]

P = maximum shaft power [kW]:

R = Revolutions per minute corresponding to maximum shaft power giving maximum torque.

2.4.2 For shafts with design features other than stated in 2.4.1, the value of k will be specially-considered.

2.5 Tailshafts and tube shafts

2.5.1 The diameter d_p, of the tailshaft immediately forward of the forward face of the propeller boss or. if applicable, the forward face of the tailshaft flange, is to be not less than determined by the following formula ;

$$d_p = 103.5ka_3\sqrt[3]{\frac{410P}{(U+160)R}}[mm]$$

where,

k = 1.22 for a shaft carrying a keyless propeller. or where the propeller is attached to an Integral flange, and where the shaft is fitted with continuous liner or is oil lubricated and provided with an approved rype of oil sealing gland.

= 1.26 for a shaft carrying a keyed propeller. and where lhe shaft Is fitted with a continuous liner or is oil lubricated and provided with an approved type of oil sealing gland;

= 1.25 fora shaft carrying a keyless propeller, or where the propeller is attached to an integral

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flange and is filled with water lubricated bearings with non- continuous shaft liners;

= 1.29 for a shaft carrying a keyed propeller and is fitted with water lubricated bearings wilh non-continuous shaft liners;

U = Specified minimum tensile strength of the shaft [N/mm^2]. but is not to be taken greater lhan 600 [N/mm^2]

P, a and R are defined in 2.4.1.

2.5.2 The diameler, d_p of lhe tailshaft delermined in accordance wilh lhe formula in 2.5.1 is to extend over a length not less lhan that to the forward edge of the bearing immediately forward of the propeller or 2.5 d_p whichever is the greater.

2.5.3 The diameter of the portion of the tailshafl and tubeshaft forward of lhe length required by

2.5.2 to the forward end of lhe forward stern tube seal is to be delermined in accordance with lhe formula in 2.5.1 except lhai:

k = 1.15, when k = 1.22 or 1.26 as required by 2.5.1

k = 1.18, when k = 1.25 or 1.29 as required by 2.5.1

The change of diameler from that required by 2.5.1 to thai required by this clause should be gradual.

2.5.4 The tlaper of the shaft cone is normally not to be steeper than 1:12 on diameter in case of keyed shafts and 1:15 on diameter in case of keyless shafts.

2.5.5 Tailshafts which run in slerntubes and tube shafts may have the diameter forward of the forward stern lube seal gradually reduced to the diameler of the intermediate shaft. About changes in shaft section at the tailshaft / tubeshaft to intermediate shaft couplings is to be avoided.

2.6 Hollow shafts

2.6.1 For hollow shafts where lhe bore exceeds 40 per cent of lhe outside diameter the minimum shaft diameler is not to be less than that given by the following equation :

$$d_o = d \sqrt[3]{\frac{1}{1 - \left(\frac{d_i}{d_o}\right)^4}} [mm]$$

where.

d_o = outside diameter [mm],

d = Rule size diameler of shaft (mm], calculated in accordance wilh 2.4 or 2.5

d_i = diameler of central hole [mm).

2.6.2 Where the diameter of central hole does not exceed 0.4 times the outside diameter, no increase over Rule size need be provided.

2.7 Integral couplings

2.7.1 The thickness of coupling flanges is not to be less than the minimum required diameler of the coupling bolls calculated as in para 2.9, where U_s = U or 0.2 times the rule diameter of the shaft under consideration, whichever is greater.

2.7.2 The fillet radius at the base of the coupling flange is to be not less than 0.08 of the diameler of the shaft at the coupling. The fillets are to have a smooth finish and are not to be recessed in way of nuts and boll heads.

2.7.3 Where the propeller is attached by means of a flange, the thickness of the flange is to be not less lhan 0.25 times the actual diameter of the adjacent part of the tailshaft. The fillet radius at the base of the coupling flange is to be not less than 0.125 times the diameler of the shaft at the coupling.

2.8 Demountable couplings

2.8.1. Couplings are to be made of steel or other approved ductile material. The strength of demountable couplings and keys is to be equivalent to that of the shaft. Couplings are to be accurately fitted to the shaft.

2.8.2. Hydraulic and other shrink fit couplings will be specially considered upon submittal of detailed pre-loading and stress calculations and fitting instructions. In general, the torsional holding capacity is to be at least 2.8 times the transmitted torque and pre-load stress is not to exceed 70 per cenl of the yield strength.

2.8.3. Provision is to be made to resist astern pull.

2.9 Coupling bolts

2.9.1. The diameter of the coupling bolts of fitted type at the joining faces of the coupling is to be not less than that given by the following formula;

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$$d_b = \sqrt{\frac{0.427d^3(U+155)}{NDU_B}}[mm]$$

where.

d_b = diameter of the fitted coupling bolls [mm];

d = requited diameter [mm] for the shad in accordance with 2.4 or 2.5 as appropriate calculated by taking the value or k as 1.0;

U = specified minimum tensile strenglh of the shaft material in [N/mm^2];

U_B = specified minimum tensile strength of the bolt material in [N/mm^2];

ans also $U \leq U_B \leq 1.7\,U$;

N = Number of bolts in the coupling:

D = Pitch circle diameter of bolt holes (mm],

2.9.2 The diameter of the non-filted bods will be specially considered upon the submittal of detailed pre-loading and stress calculations and "fitting instructions.

2.10 Tailshaft liners

2.10.1 The thickness, t, of bronze or gunmelal liners fitted on tail shafts, in way of bearings, is not to be less than given by following formula :

$$t = \frac{168 + d_p}{28}[mm]$$

where,

t = thickness of liner [mm];

d_p = diameter of tail shaft under the liner (mm].

2.10.2. The thickness of the continuous liner between the bearings is not to be less than 0.75t.

2.10.3. Continuous liners are preferably to be cast in one length. If made of several lengths the joining ot ihe separate pieces is to be made by welding through the whole thickness of liner before shrinking. In general, the lead content of the gunmetal of each length forming a butt welded liner is not to exceed 0.5 per cent, The composition ol the eledrode or filler tods is to be substantially lead free.

2.10.4 The liners are to withstand a hydraulic pressure of 0.2 [N/mm^2] after rough machining.

2.10.5 The liners are to be carefully shrunk or forced upon the shaft by hydraulic pressure, and they are not to be secured by pins.

2.10.6 Effective means are to be provided for preventing water from reaching lhe shaft at the part between the afler end of the liner and the propeller boss.

2.10.7 If the liner does not fit the shaft tightly between the bearing portions in the stern lube. the space between the shaft and the liner is to be filled with a plastic insoluble non- corrosive compound.

2.11 Keys and keyways

2.11.1 Round ended or sled-runner ended keys are to be used, and the key ways in the propeller boss and cone of the tail shaft are to be provided with a smooth fillet at the bottom of the keyways. The radius of the fillet is to be at least 0.0125 of the diameter oMhe tail shaft a 1 the top of the cone. The sharp edges at the top of the keyways are to be removed.

2.11.2 Two screwed pins are to be provided for securing the key in the keyway and the forward pin is to be placed at least one-third of the length of the key from the end. The depth of the tapped holes for the screwed pins' is not to exceed the pin diameter and the edges of the holes are to be slightly beveled.

2.11.3 The distance between the fop of the cone and the forward end of the keyway is to be not less than 0.2 of the diameter of lhe lailshafi at the top of the cone.

2.11.4 The effective sectional area of the key in shear, is to be not less than $\frac{d^3}{2.6d_1}$ [mm^2]

where.

d = diameter [mm], required for the intermediate shaft determined in accordance with 2.4, based on material having a specified minimum tensile strength of 400 [N/mm^2]:

d_1 = diameter of snarl at mid-length of me key [mm],

2.12 Stem tube and bearings

2.12.1 The length of the bearing in the sternbush next to and supporting the propeller is to be as follows;

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a) For watef lubricated bearings which are lined with lignum vilae, rubber composition or staves of approved plastic material the length Is to be not less than *A* limes the rule diameter required for Ihe tailshafl under the liner

b) For bearingswhich arewhile-metal lined, oil lubricated and provided with an approved type of oil sealing gland; the length of the bearing is to be approximately twice the rule diameter required for the lailshaft and is to be such that the nominal bearing pressure will not exceed 0.8 [N/mm^2]. The length of the bearing is to be not less than 1.5 times its rule diameter;

c) For bearings of cast iron, bronze which are oil lubricated and fitted with an approved oil sealing gland; the lenglh of the bearing is, in general, to be not less than 4 times the rule diameter required for the tailshaft;

d) For bearings which are grease lubricaled; the length of bearing is to be not less than A times the rule diameter required for the tailshaft;

e) For water lubricated bearings lined with two or more circumferentially spaced sectors of an approved plastics material, in which it can be shown that the sectors operate on hydrodynamic principles, the lenglh of the bearing is to be such that the nominal bearing pressure will not exceed 0.55.

[N/mm^2]. The length of the bearing is not to be less than twice actual diameter of shaft.

2.12.2 Forced water lubrication Is to be provided for all bearings lined with rubber or plastics and forlhose bearings lined with lignum vitae where the shaft diameter is 380 [mm] or over. The supply water may come from a circulating pump or other pressure.source. The water grooves in the bearings are to be of sample section and of a shape which will be little affected by weardown, particularly for bearings of the plastic type.

2.12.3 The shut off valve or cock controlling the supply of water is to be fitted direct to the after peak bulkhead, or to the sterntube where the water supply enters the slemlube forward of the bulkhead.

2.12.4 Where a tank supplying lubricating oil to Ihe sternlube is fitted, it is to be located above the load water line and is to be provided with a low level alarm device in the engine room.

2.12.5 Where slembush bearings are oil lubricaled provision is to be made for cooling the oil by maintaining water in the after peak tank above Ihe level of Ihe sterntube or by other approved means. Means of ascertaining the temperature of Ihe oil in Ihe sternbush are also to be provided.

2.12.6 The oil sealing glands used for slernlube bearings, which are oil lubricated, are to be of approved type.

Section 3
Propellers

3.1 Scope

3.1.1 The requirements of this Section cover the construction, materials and inspection of propellers.

3.2 Plans and particulars

3.2.1 A plan, in triplicate, of the propeller is to be submitted foi approval together with the following particulars:

a) Maximum shaft power P, in [kW];
b) Revolutions per minule of the propeller at maximum power, R;
c) Propeller diameter, D [m];
d) Pitch at 25 per cent radius (for solid propellers only), $P_{0.25}$ [m];
e) Pitch at 35 per cenl radius (for controllable pitch propellers only), $P_{0.35}$ [mj;
f) Pitch at 70 per cent radius, $P_{07.}$ [m];
g) Length of blade section of the expanded cylindncal at 25 percent radius (for solid propeller only), $L_{025.}$ [mm]:
h) Length of blade section of expanded cylindrical section art 35 per cent radius (for controllable pitch propellers only) $L_{0.35.}$ in [mm];

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i) Rake at blade tip measured at shaft axis (backward rake positive, forward rake negative), K. in [mm]:

j) Number of blades, N;

k) Developed area ratio, a.

3.3 Materials

3.3.1 Castings for propellers and propeller blades are to comply with the requirement of Ch.8, Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels. The specified minimum tensile strength is to be not less than stated in Table 3.4.1.

3.3.2. When it is proposed to use materials which are nol included in Table 3.4.1, details of the chemical composition, mechanical properties and density are to be submitted for approval.

3.4 Design

3.4.1 Minimum blade thickness

3.4.1.1 Where the propeller blades are of conventional design, the thickness, I, of the propeller blades at 25 per cent radius for solid propellers, at 35 per cent for controllable pilch propellers, neglecting any increase due to fillets, is to be not less than :'

a) For fixed propellers

$$t_{0.25} = 1003\sqrt{\frac{AP}{C_n CRN}} + \frac{0.024BKCs}{CC_n}[mm]$$

a) For conlrollable pilch propellers

$$t_{0.25} = 805\sqrt{\frac{AP}{C_n CRN}} + \frac{0.015BKC_S}{CC_n}[mm]$$

where

$t_{0.25}$ = minimum blade thickness required at 25 percent redius.

$t_{0.35}$ = minimum blade thickness required at 35 percent radius ;

C_n = Section modulus coefficient at 25 percent radius or 35 percent radius as applicable.

$= \frac{I_0}{U_f LT^2}$ and is not to be taken

greater than 0.10;

I_o = Moment of inertia of the expanded cylindrical section at 25 per cent radius or 35 per cenl radius, as applicable, about a straight line passing through the center of gravity parallel to the pitch line or to the nose-tail line, in [mm^4];

U_f - maximum normal distance from the moment of inertia axis to points on (he face boundary (tension side) of the Section at 25 per cent radius or 35 per cent radius, as applicable [mm];

L = Length of the blade Section of the expanded cylindrical Section at 25 per cent radius or 35 per cent radius, as applicable, [mm];

T = Maximum thickness of the expanded cylindrical Section as approved at 25 per cent or 35 per cent radius, as applicable [mm];

C_s = Section area coefficient at 25 per cent radius or 35 per cent radius as applicable:

$= \frac{a_s}{LT}$

a_s = area of the expanded cylindrical Section at 25 per cent radius or 35 per cent radius, as applicable [mm^2];

f = material constant as per Table 3.4.1;

w = material constant as per Table 3.4.1.

a) For fixed – pitch propellers

$$A = 1.0 + \frac{6.0D}{P_6} + \frac{4.3P_{0.25}}{D}$$

$$B = \left(\frac{4300wa}{N}\right)\left(\frac{R}{100}\right)^2\left(\frac{D}{20}\right)^3$$

$$C = \left(1 + \frac{1.5P_{0.25}}{D}\right)\left(L_{0.25}f - B\right)$$

b) For controllable pitch propellers

$$A = 1.0 + \frac{6.0D}{P_6} + \frac{3.OP_{0.35}}{D}$$

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$$B = \left(\frac{4900wa}{N.}\right)\left(\frac{R}{100}\right)^2\left(\frac{D}{20}\right)^3$$

$$C = \left(1+\frac{1.5P_{0.35}}{D}\right)(L_{0.35}f - B)$$

3.4.1.2 Propellers of unusual design or application will be subject to special consideration upon submittal of detailed stress calculations.

3.4.1.3 Fillets at the root of the blades are not to be considered in the determination of blade thickness.

Table 3.4.1 : Material constants

Materials	Specified min. UTS [N/mm^2]	f	w
Manganese teonze Grade Cu 1	440	22.6	8.3
Ni-Mangsnese bronze Grade Cu 2	440	22.9	8.0
Ni-Aluminium bronze Grade Cu 3	590	25.7	7.5
Mn-Aluminium bronze Grade Cu 4	630	25.6	7.5
Cast iron	250	11.77	7.2
Caibon and low alloy steels	400	14.0	7.9
Note: The value of t may be increased by 10 percent for twin screw and outboard propellers of triple screw vessels			

3.4.2 Keyless propellers

3.4.2.1 Where propellers are filled without keys, detailed stress calculations and fitting instructions are to be submitted for approval.

3.4.3 Controllable pitch propellers

3.4.3.1 In the case of controllable - pitch propellers, means are to be provided to lock the blades in ahead position in case of the failure of the pilch operating mechanism.

3.4.3.2 A propeller pitch indicator is to be fitted at each station from which it is possible to control the pitch of the propeller.

3.5 Fitting of propellers

3.5.1 The propeller boss is to be a good fit on the tailshaft cone. The forward edge of the bore of the propeller boss is to be rounded to about 6 [mm] radius.

3.5.2 The exposed part of the lailshaft is to be protected from the action of water by filling all spaces between propeller hub, cap and shaft with a suitable filling material. The propeller assembly is to be sealed at the forward end with a well-fitted soft rubber packing ring. When the rubber ring is fitted in an external gland, the hub counlerbore is to be filled with suitable material, and clearances between shaft liner and hub counterbore are to be kept to a minimum. When the rubber ring is fitted internally, ample clearance is to be provided between liner and hub and the ring is to be sufficiently sized to squeeze in to the clearance space when the propeller is driven up on the shaft: and, where necessary, a filler piece is to be fitted in the propeller - hub keyway to provide a flat unbroken sealing for the ring. The recess formed at the small end of the taper by the over hanging propeller hub rs to be packed with red lead putty or rust-preventing compound before the propeller.nul is put on.

3.5.3 Effective means are to be provided to prevent the slackening of the propeller nut.

Section 4
Vibrations and Alignment

4.1 Scope

4.1.1 The requirements of this Section are applicable to main propulsion systems with power exceeding 200 [kW] and auxiliary machinery systems for essential services with powers exceeding 200 [kW]

4.1.2. Unless otherwise advised, it is the responsibility of the Vesselbuilder as the main contractor to ensure, in co-operation with the Engine builders, that the information required by thrs Section rs piepaied and submitted.

4.2 Basic system requirements

4.2.1 The systems are to be free from excessive torsional, axial and lateral vibration, and are to be aligned in accordance with tolerances agreed with the respective manufacturers.

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4.2.2 Where changes are subsequently made to a dynamic system which has been approved, revised calculations are to be submitted for consideration.

4.3 Resilient mountings

4.3.1 Where the machinery is installed on resilient mountings, linear vibration (steady state and transient) is not to exceed the limiting values agreed with the manufacturers of the machinery nor those of the resilient mountings.

4.3.2 Misalignment arising from such vibration is not to impose excessive loading on machinery components within the system.

4.4 Torsional vibration

4.4.1 Torsional vibration calculations, including an analysis of the vibratory torques and stresses for the dynamic systems formed by the oil engines, turbines, motors, generators, flexible couplings, gearing, shafting and propeller where applicable, including all branches, are to be submitted for approval together with the associated plans.

4.4.2 Particulars of the division of power developed throughout the speed range for turbines, or from all intended combinations oil operation in oil engine installations having more than one engine and/or with power take-off systems are to be submitted.

4.4.3 Any special speed requirements for prolonged periods in service are to be indicated, e.g.. range of trawling revolulions per minute. range of operation revolutions per minute with a controllable pitch propeller, idling speed, etc.

4.4.4 The calculations and/or measurements carried out on oil engine installations containing transmission items sensitive to vibratory torque, e.g. gearing, flexible couplings, or generator rotors and their drives, are to take into account the effects of engine malfunction commonly experienced in service, such as cylinder(s) not firing.

4.4.5 Restricted speed ranges will be imposed in regions of speed where stresses are considered to be excessive for continuous running. Similar restrictions will be imposed, or other protective measures required to be taken, where vibratory torques are considered to be excessive for particular machinery items.

4.4.6. Where calculations indicate the possibility of excessive torsionat vibration within the range of working speeds, torsional vibration measurements, using the appropriate. recognized techniques, may be required to be taken from the machinery installation for the purpose of determining the need for restricted speed ranges.

4.5 Axial vibrations

4.5.1 For all main propulsion shafting systems, the VesselbuikJers are to ensure that amplitudes due to axial vibrations are satisfactory throughout the speed range, so far as practicable. Where appropriate, amplrtudes may be reduced by the use of suitable vibration dampers or phasing of propeller and engine, etc.

4.5.2 Unless previous experience of similar installation shows It to be unnecessary. calculations of the shafting system are to be carried out. These calculations are to include the effect of the thrust block seating and the surrounding hull structure taking part in the vibration. The resutt of these calculations or the evidence of previous experience is to be submitted for consideration.

4.5.3 Where calculations indicate the possibility of excessive axial vibration amplitudes wilhin the range of working speeds, measurements using an appropriate recognized technique may be required to be taken from the shafting systems for the purpose of determining the need for .restricted speed ranges.

4.6 Lateral vibrations

4.6.1 For all main propulsion shafting systems, the Vesselbuilders are to ensure that amplitudes due to lateral vibrations are satisfactory throughout the speed range.

4.6.2 Unless previous experience of similar installations shows it to be unnecessary, calculations of lateral, or bending, vibration characteristics of the shafting system are to be carried out. These calculations, taking account of dynamic bearing stiffnesses, are to cover the frequencies gh/ing rise to all critical speeds which may result in significant amplitudes wilhin the speed range, and are to indicate relative deflections and bending moments throughout the shafting system.

4.6.3 The resuRs of these calculations. or the evidence of previous experience, is to be submitted for consideration.

4.6.4. Where calculations indicate the possibility of excessive lateral vibration amplitudes wilhin the range of working speeds, measurements using an appropriate recognized technique may be required to be taken from the shafting system

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for the purpose of determining the need for restricted speed rangers.

4.7. Shaft alignment

4.7.1. For main propulsion installations, the shafting is to be aligned to give acceptable bearing reactions, and bending moments at all conditions of vessel loading and operation. The Vesselbuilder is to postion the bearings and construct the bearing seatings to minimize the effects of movements under all operating conditions.

4.7.2. For geared installations, where two or more pinions are driving the final reduction wheel, calculations are to be submitted to verify that shaft alongmnet is such that proper bearing reactions are maintained under all operating conditions.

4.7.3. Shaft alignment is to be verified by measurement.

End of Chapter

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Chapter 5

Boilers and Pressure Vessels

Contents

Section

1 General

Section 1

General

1.1 Scope

1.1.1 The requirements of this Chapter are applicable to pressure vessels of seamless and fusion welded construction, and their mountings and fittings, for the following uses :

a) Fired boilers:

b) Exhaust gas healed boilers;

c) Economizers, superheaters, rehealers and steam receivers for, and associated with (a) and(b);

d) Steam healed sleam generators;

e) Other pressure vessels, not included in (a) to (d).

1.1.2. Consideration will be given to arrangements or details of boilers, pressure vecsels and equipment which can be shown to comply with other recognized standards, provided they are not less effective.

1.2 Design pressure

1.2.1 The design pressure is the maximum permissible working pressure and is to be not less than the highest set pressure or any safety valve.

1.2.2 The calculations made to determine the scantlings of the pressure parts are to be based on the design pressure, adjusted where necessaryto take account of pressure variations corresponding to the most severe operational conditions.

1.2.3 It is desirable that there should be a margin between the normal pressure at which the boiler or pressure vessel operates and the lowest pressure at which any safely valve is set to lift, to prevent unnecessary lifting of the safely valve.

1.3 Metal temperature

1.3.1 The metal temperature, T, used to evaluate the allowable stress is to be taken as the actual metal temperature expected under operating condition's for the pressure part concerned, and is to be staled by the manufacturer when plans of the pressure parts are submitted tor consideration.

1.3.2 For boilers, the design metal temperature is not to be taken less than the following values, unless justified by an exact calculation or the temperature drop and is in no case to be taken less than 250°C:

a) For steam heated steam generators. secondary drums of double evaporation boilers, steam receivers and pressure parts of fired pressure vessels nol heated by hot gases and adequately protected by insulation, the metal temperature, T is to be taken as lhe maximum temperature of the internal fluid;

b) For pressure parts heated by hot gases. T is to be taken as not less lhan 25°C in excess of the maximum temperature of the internal flutd:

c) For combustion chambers of the type used In horizontal wei-back boilers, T "rs to be taken as not less than 50°C in excess of the maximum temperature of the internal fluid:

d) For furnaces, fire boxes, rear-tube plates of dry-back boilers and pressure parts subject

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to similar rates of heat transfer, T is to be taken as not less than 90°C in excess of the maximum temperature or the internal fluid;

e) For boiler, superheater, rehealer and economizer lubes, the design temperature is to be taken as under:

- For boiler tubes the design temperature is to be taken as not less than saturated steam temperature plus 25°C for lubes mainly subject to convection heat, or plus 50°C fortubes mainfy subject to radiant heal;
- For superheater and reheater tubes, the design temperature is to be taken as not less than steam temperature expected in the part being considered, plus 35°C for tubes mainly subject to convection heat. For lubes mainly subject to radiant heal the design temperature is to be taken as not less than the steam temperature expected in the part being considered, plus 50°C, but the actual metal temperature expected is to be slated when submitting plans:
- The design temperature for economizer lubes is to be taken as not less than 35°C in excess of the maximum temperature of the internal fluid,

1.3.3 In general, any part of boiler drums or headers not protected by tubes, and exposed to radiation from the fire or to the impact of hot gases, is to be prolected by a shield of good refractory material or by other approved means.

1.3.4 Drums and headers of thickness greater than 30 [mm] are not to be exposed to combustion gases having an anticipated temperature in excess of 650"C unless they are efficiently cooled by closely arranged tubes.

1.4 Plans and particulars

1.4.1 The following plans, in triplicate, for boiler and pressure vessels are to be submitted for approval, in so far as applicable:

a) General arrangement, including arrangement of valves and fittings:
b) Sectional assembly;
c) Sealing arrangements;
d) Steam, water drum and header details:
e) Water wall details;
f) Steam and superheater tubing, including the tube support arrangements;
g) Economizer details;
h) Casing arrangement;
i) Reheat section;
j) Fuel oil burning arrangement;
k) Forced draft system;
i) Boiler mountings including steam stop valves, safety valves and their relieving capacities, feed water connections, blow-off arrangements, watergauges, test cocks, etc.

1.4.2 The plans are to include the following particulars, in so far as applicable :

a) Scantlings;
b) Materials;
c) Weld delails;
d) Design pressures and temperatures:
e) Heating surface areas of boilers and superheaters;
f) Estimated pressure drop through superheater:
g) Estimated evaporation rate;
h) Proposed setting pressure of safety valves on steam drum and superheater;
i) Pressure vessel class;
j) Details of heat treatment and testing of welds;
k) Calculations of thicknesses, when required;
l) Test pressures.

1.5 Classification of pressure vessels

1.5.1 For Rule purposes, boilers and pressure vessels are giaded as shown in Table 1.5:1.

1.5.2. Pressure vessels which are conslructed in accordance with the requirements of Class 2 or Class 3 will, if manufactured in accordance with the requirements of a superior class, be approved with the scantlings appropriate to that class.

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Table 1.5.1 : Grading of pressure vessels

	Boilers	Steam – heated steam generators	Other pressure vessels
Class – 1	P > 3.5	$D_i > \left(\frac{15}{P} - 1\right)1000$	P > 50 or t > 38
Class – 2	P ≤ 3.5	$D_i < \left(\frac{15}{P} - 1\right)1000$	$p \le 50 or D_i > \left(\frac{20}{P} - 1\right)$ 1000 and 16 < t ≤ 38 or material temperature > 150°C
Class – 3			$D_i \le \left(\frac{20}{p} - 1\right)1000 and t \le 16$ and material temperature < 150°C

Notes :
P = design pressure, in bar D_i = internal diameter [mm] t = shell thickness [mm]

1.5.3 In special circumstances relating to service conditions, maleiials, operating temperature. The carriage of dangerous gases and liquids, etc. it may be required lhat certain pressure vessels be manufactured in accordance with the requirements of a superior class.

1.6 Materials

1.6.1 Materials used in the construction of boilers and pressure vessels are to be manufactured in accordance with the requirements of Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels.

1.6.2 The specified minimum tensile strength of carbon and carbon manganese steel plates, pipes, forgings and castings is to be within the following general limits:

a) For seamless and Class 1 and Class 2 fusion welded pressure vessels - 340 – 520 [N/mm^2];

b) For boiler furnaces, combustion chambers and flanged plates - 400 - 520 [N/mm^2].

1.6.3 The specified minimum tensile strength of low alloy steel plates, pipes, forgings and castings is to be within the general limits of 400 - 520 [N/mm^2], and pressure vessels made in these steels are to be either seamless or Class 1 fusion welded.

1.6.4 The specified minimum lensile strength of boiler and superheater lubes is to be within lhe following general limits;

a) Carbon and carbon-manganese steels - 320 - 460 [N/mm^2]:

b) Low alloy steels - 400 - 500 [N/mm^2].

1.6.5 Where it is proposed to use materials other than those specified in Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels, details ot ihe chemical compositions. heat treatmenl and mechanical properties are to be submitted for approval. In such cases the values of lhe mechanical properties used tor deriving the allowable stress are to be subject to agreement by classification society.

1.6.6 Where a fusion welded pressure vessel is to be made ot alloy steel and approval of the scannings is required on the basis of the high temperature properties of the material, particulars of the welding consumables to be used, including typical mechanical properties and chemical composition of the deposited weld metal, are to be submitted for approval.

1.7 Pressure parts of irregular shape

1.7.1 Where pressure parts are of such irregular shape that it is impracticable to design their scantlings by lhe application of formulae given in this Chapter, the suitability of their construction is to be determined by hydraulic proof test of a prototype or by an agreed alternative method.

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1.8 Adverse working conditions

1.8.1 Where working conditions are adverse, special consideration may be required to be given to increasing the scantlings derived from the formulae, e.g. by increasing the corrosion or other allowance at present shown in the formulae, or by adopting a design pressure higher than defined in 1.2, to offset the possible reduction of life in service caused by the adverse conditions. In this connection, where necessary, account should also be taken of any excess of loading resulting from :

a) impact loads, including rapidly fluctuating pressures;

b) weight of the vessel and normal contents under operating and test conditions;

c) superimposed loads such as other pressure vessels, operating equipment, insulation, corrosion-tesistani or erosion-resistant linings and piping;

d) reactions of supporetin lugs, rings, saddles, or other types of supports;

or

e) the effect of temperature gradients on maximum stress.

1.9 Design

1.9.1 The boilers and pressure vessels are to be designed in accordance with the requirements of Ch.5. Pt.4, Main and Auxiliary Machinery, of Rules & Regulations for the Construction and Classification of Steel Vessels.

1.10. Manufacture

1.10.1. The manufaclure of boilers and pressure vessels is to be carried out in accordance with lhe requirements of Ch.10, Pt.4, Main and Auxiliary Machinery, of Rules & Regulations for the Construction and Classification of Steel Vessels.

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Chapter 6

Steering Gears

Contents

Section

1. General
2. Design Criteria

Section 1

General

1.1 General

1.1.1 All vessels are to be provided with reliable steering systems which would allow the vessel to be steered safely having regard to the use and principal dimensions of the vessel. This requirement does not apply to vessels intended to be pushed only. Proposals to fit a hand tiller only will receive special onsideration.

1.1.2 Far vessels not fitted with rudders but equipped with steering propellers / nozzles or Voith-Schneider propellers, see 2.5. For vessels filled with rudders, a steering gear is to be provided.

1.1.3 The steering gear is to be secured to the sealing by fitted bolts, and suitable chocking arrangements are to be provided. The sealing is to be of substantial construction.

1.1.4. The steering gear is to be so designed that the rudder cannot change position when not intended to do so,

1.1.5 Steering geais maybe manually operated (steering chains and lods or hand/hydraulic) or fully powered (electric or electric / hydraulic). However, when the rule diameler of the rudderslock exceeds 150 [mm] in way of tiller, a fully powered steering gear is to be provided,

1.1.6 Manually operated gears or power assisted gears are only acceptable when the operation does not require an effort exceeding 16 [kgf] under normal conditions.

1.1.7. If a fully powered steering gear is fitted an independent secondary means of steering is to be provided.

1.1.8. Requirements for chemical tankers, gas carriers and similar vessels will be specially considered by classification society.

Section 2

Design Criteria

2.1 General

2:1.1 The entire steering gear is to be designed, constructed and installed to allow for a permanent transverse list of up to 15 and for ambienl temperatures commensurate with the area in which he vessel is to operate.

2.1.2 The parts comprising the steering gear are to be so dimensioned thai they can withstand all lhe maximum stresses to which they will be subjected in normal operating conditions. The steering gear is to be sufficiently strong so lhat in the event of rudder touching the bottom or bank, the maximum damage would be limited to deformation or fracturing of the rudder slock.

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2.1.3 The steering gear is to be so designed that a rudder angle or not less than 35 on either side can be obtained.

2.1.4 Where the steering gear is manually operated, on an average one complete turn of the hand wheel is to correspond (o at least 3 of rudder angle.

2.1.5 Where the steering gear is fully powered, it is to be capable of turning the rudder at an average rate of A per second through the entire rudder arc when the rudder Is fully immersed and with the vessel at full speed.

2.1.6 Where fully powered steering gear is provided with a second, manually operated gear, the latter is to permit the vessel to proceed to a mooiing at reduced speed.

2.2 Fully powered steering gear

2.2.1 Fully powered steering gears may be of the direct electric or electric/hydraulic type.

2.2.2 Powered steering gears are to be titled with means to limit the torque exerted by the drive.

2.2.3 In case of failure of the main drive and the secondary drive not engaging automatically, it is to be possible to engage the secondarydrive by hand at the steering position within 5 seconds wilh the rudder in any posrtion.

2.2.1 At the steering station, automatic indication is to be provided as to which drfve is in operation.

2.2.5 If the independent secondary drive is manual the power drive is not to actuate the hand wheel. A device is to be fitted to prevent inadvertent turning-of (he hand wheel when the manual drive is engaged automatically.

2.2.6 Where the main steering gear is power hydraulically operated whilst the secondary steering is a manually operated hydraulic system, the piping of both systems is to be completely separate, and the main installation is to operate without using the steering wheel pump of the secondary installation.

2.2.7 Where both the main and secondary drive are power hydraulic the respective pumps must be driven independently.

2.2.8 Where the secondary pump rs driven by an engine which does not operate continuously whilst the vessel is in motion, means are to be provided to operate the steering gear instantly whilst the emergency engine is gaining the required speed.

2.2.9 The two installations are to have separate pipes, varves controls, etc. Where the independent functioning of the two installations is ensured, they may have common components.

2.3 Manual drive

2.3.1 Where the sole steering installation is a manually operated system, an independent secondary steering system is not required, provided that in the case of a hydraulic system, the dimensioning, construction and layout of the piping precludes deterioration through .mechanical action or fire, and the construction of the steering wheel pump ensures faultless operation.

2.4 Rudder position

2.4.1 If lhe position of the rudder(s) is not clearly perceivable from the steering station, a reliable rudder-angle-indicator-is-to-be-provided-at-the steering station.

2.4.2 Any rudder a/igle indicator fitted, is to function for both the main and secondary steering gear

2.5 Rudder propellers and Voith Schneider equipment.

2.5.1 Where a steering propeller/nozzle or Voith Schneider propeller is fitted, two independent control systems are to be provided between the steering station and the propulsion installation.

2.5.2 Where two or more independent steering propulsion installations are fitted, a secondary independent control system is not required provided the vessel remains sufficiently maneuverable in the event of one of the installations failing.

2.6 Tillers, quadrants and connecting rods.

2.6.1 For the requirements regarding rudder, rudder stock, See Pt.3, Ch.12.

2.6.2 All components transmitting mechanical forces to the rudder slock are to have a strength of at least equivalent to the rudder stock in way of the tiller. The combined resultant stress, σ_e, caused by the transmission of rudder torque, Q_r, in tillers, vanes and other power transmitting components is not to exceed 138 [N/mm^2], i.e.

$$\sigma_e = \sqrt{\sigma^2 + 3\tau^2} \leq 138[N/mm^2]$$

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where.

σ_e = The combined equivalent stress, [N/mm^3]

σ = The bending stress, [N/mm^2]

τ = The lofsional shear stress, [N/mm^2]

Q_r = The rudder torque [N-m] calculated as per Pt.3. Ch.12, Sec.3.2;

2.6.3 The section modulus "Z" [cm^3] and the sectional area 'A'[cm^2]of the tiller arms is not to be less than the following ;

$$Z = 0.12Qr\left(1-\frac{x}{R}\right)[cm^3]$$

$$A = 2.0\frac{Qr}{R}x10^{-4}[cm^2]$$

where,
R = The distance [m], from the point of application of the effort on the tiller to the centre of rudder stock; and
x = The distance [m] from the section under consideration tothe centre of the rudder stock.

2.6.4 The boss may be filled on the mdder stock by shrinking with/without key or may be of the split type. The ratio between the mean of outer and inner diameters of the boss is to be not less than 1.75 and lhe height of the boss is not to be less than the inner diameter of the boss.
2.6.5. Co-efficient of friction Tor shrink fitting is not to be taken greater than 0.17 for dry fitting and 0.15 for oil injection Titling.
2.6.6 In case of split type boss, the total number of joining bolts is to be al least 4. The distance of the centre or the bolts from the centre of the rudder slock is generally to be 1.15du and the thickness of the coupling flange is to be at least 1.1 times the required bott diameter. The thickness of shim to be fitted between two halves before machining is to be 0.0015du. The diameter of the coupling bolt, d_b is to be not less than :

$$d_b = 0.60\frac{d_u}{\sqrt{n}}[mm]$$

where,

d_u = The rudder slock diameter in way of the tiller calculated in accordance with Pt.3, Ch.12, Sec.3;

n = Total number of joining bolts.

2.6.7 The shear area of the key, As, is not to be less than:

$$A_s = \frac{0.18Q_r}{d_m}[cm^2]$$

where.
d_m = diameter of the conical part of the rudderstock at midway of key, [mm]

The keyway is to extend over the full depth of the tiller and have rounded edges. The abutting surface area ol the key, At,, (discounted rounded edges) between the key and the rudder stock or the key and the liller boss is not to be less than:

$$A_b \geq 0.5\ A_s$$

2.6.8 Where higher tensile bolls are used on bolted tillers and quadrants, the yield and ultimate tensile stresses of the bolt material are to be stated on the plans submitted for approval, togelher with full details of the methods to be adopted to obtain lhe required setling-up stress. Where patent nuts or systems are used, the manufacturer's instructions for assembly should be adhered to.

2.6.9 In bow rudders having a vertical locking pin operated from the deck above, positive means are to be provided to ensure that the pin can be lowered only when the rudder is exactly central. In addition, an indicator is to be fitted at the deck to show when the rudder is exactly central.

2.6.10 Steel-wire rope, chain and other mechanical systems, when these are used for rudder stock diameters of 120 (mm) and less but excluding allowance for strengthening in ice, will be specially considered. In general the breaking strength of rods/chains etc. is not to be less than:

$$\text{Breaking strength} = 6\frac{Q}{R}\ [N]$$

Where R is defined in 2.6.3.

2.7 Locking or brake gear and springs

2.7.1 An efficient locking or brake arrangement is to be fitted to all gears to keep the rudder steady when necessary. In the case of hydraulic .

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Steering gears which are fitted with isolating valves on the body of the gear and duplicate power units, an additional mechanical brake need not be fitted.

2.7.2. In bow rudders having a vertical locking pin operated from the deck above, positive means are to be provided to ensure that the pin can eb lowered only when the rudder is exactly central. In addition, an indicator is to be fitted at the deck to show when the rudder is exactly central.

2.7.3. The steering gear, unless hydraulically powered, is to be protected by means of spirings or buffers from damage by impact on the rudder.

2.8 Rudder stops

2.8.1. Suitable stopping arrangements are to be provided for the rudder. Cut – outs on the sterrign engine are to be arranged to operate at a smaller angle of them than those for the rudder.

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Chapter 7

Control Engineering Systems

Contents

Section	
1	General Requirements
2	Essential Features for control and alarm systems
3	Control and supervision of machinery

Section 1

General Requirements

1.1 General

1.1.1 This Chapter applies to all vessels and is in addition to other relevant Chapters of the Rules,

1.1.2 Attention should also be given to any relevant requirements of National, International or Local Authorities which would apply to the vessels in service.

1.1.3 This Chapter stales requirements for systems of automatic or remote control which may be used for controlling the machinery contained in 1.2.2. The design and installation or olher control equipment is to be such that there is no risk of danger due to failure.

1.1.4 The details of control systems will vary wilh the type of machinery being controlled and special consideration will be given to each case.

1.2 Plans

1.2.1 Where control systems are applied to essential machinery or equipment as listed in 1.2.2. Plans are to be submitted In triplicate. They are to include or to be accompanied by:

- Details or operating medium, i.e. pneumatic, hydraulrc or electric, including standby sources of power.
- Description and/or block diagram showing method of operation.
- Line diagrams of control circuits.
- Lists of points monitored.
- List of alarm points.
- List of control poinls.
- Test facilities provided.
- Test shedules

1.2.2 Control systems. Plans are required for the following:

- Ballast systems. Bilge systems.
- Cargo pumping systems for tankers.
- Controllable pilch propellers.
- Electrical generating plant.
- Fire detection systems.
- Main propelling machinery including essential auxiliaries.
- Steam raising plant.
- Transverse lhrust units,
- Steering gear plant.

1.2.3 Alarm systems. Details of the overall alarm system linking engine room, wheelhouse and, where applicable, accommodation spaces are to be submitted.

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1.2.4 Control Station. Location and details of control station are to be submitted, e.g. control panels.

1.2.5 Standard system. Where it is intended to employ a system which has been previously approved, plans may not be required to be submitted.

1.3 Alarm and control equipment

1.3.1 Major units of equipment associated with control, alarm and safety systems as defined in 1.2 are to be surveyed at the manufacturers' works and the inspection and testing is to be to the Surveyor's satisfaction.

1.3.2 Equipment used in control, alarm and safely systems should whenever practicable, be selected from the List of Type Approved Control and Electrical Equipment published by classification society. A copy of classification society Test Requirements for the Type Approval of Control and Electrical Equipment will be furnished on application.

1.3.3 Assessment of performance parameters, such as accuracy, repeatability and the like, are to be in accordance with an acceptable National or International Standard.

1.4 Alterations or additions

1.4.1 When an alteration or addition to the approved system(s) is proposed, plans are to be submitted for approval. The alterations or additions are to be carried out under survey, and the inspection, testing and installation is to be to the Surveyor's satisfaction.

Section 2
Essential Features for control and Alaram Systems

2.1 General

2.1.1 Where it is proposed to install control and alarm systems to the equipment defined in 1.2.2 the applicable features contained in 2.2 to 2.5 are to be incorporated in lhe system design.

2.2 Control slation(s) for machinery

2,2.1 A system of alarm displays and controls are to be provided which readily ensure identification of faults in the machinery and satisfactory supervision of related equipment.

2.3 Alarm system

2.3.1 Where an alarm system, which will provide warning of faults in the machinery and control systems is installed, the requirements of 2.3.1 to 2.3.10 are to be satisfied.

2.3.2 Machinery and control system faults are to be indicated al the relevant control station to advise duty personnel of a fault condition.

2.3.3. Individual alarm channels may be displayed as group alarms al the main control station (if fitted) or alternatively at subsidiary control stations.

2.3.4 All alarms are to be both audible and visual. If arrangements are made to silence audible alarms lhey are not to extinguish visual alarms.

2.3.5 If an alarm has been acknowledged and a second fault occurs before the first was rectified then audible and visual alarms are again to operate.

2.3.6 Failure of the power supply to the alarm system is to be indicated.

2.3.7 The alarm system should be designed wilh self-monitoring properties. As far as practical, any fault in the alarm system should cause it to fail to the alarm condition.

2.3.8 The alarm system is to be designed as far as practical to function independently of control systems, such that a failure or malfunction in these systems will not prevent the alarm from operating.

2.3.9 Disconnection or manual overriding of any part of the alarm system should be clearly indicated.

2.3.10 The alarm system is to be capable of being tested.

2.4 Control systems

2.4.1 Control systems fer machinery operations are to be stable throughout their operating range.

2.4.2. Failure of the power supply to a control system for propulsion machinery and associated systems is to operate an audible and visual

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alarm.

2.4.3 When remote or automatic controls are provided, sufficient instrumentation is to be fitted at the relevant control stations to ensure effective control and indicate that the system is functioning correctly.

2.4.4 Where valves are operated by remote or automatic control, the system of control should include the following safety features:

(a) Failure of actuator power should not permit a closed valve to open inadvertently.
(b) Positive indication is to be provided at the remote control station for the service to show the actual valve position or alternatively that the valve is fully open or closed. Valve position indicating systems are to be of an approved type.
(c) Equipment located in places which may be flooded should be capable of operating when submerged.
(d) A secondary means of operating the valves which may be local manual control is to be provided.

2.5 Fire detection alarms systems

2.5.1 Where an automatic fire detection system is to be fitted in a machinery Space the requirements of 2.5.2 to 2.5.9 are to be satisfied.

2.5.2 A fire detector indicator panel is to be located in such a position that a fire in the machinery spaces will not render fi inoperative.

2.5.3 The audible fire alarm is to have a characteristic tone which distinguishes it from any other alarm system. The audible Tire alarm fs to be audible on all parts of the bridge and in the accommodation areas.

2.5.4 The alarm system should, so far as practicable, be designed with self-monitoring properties.

2.5.5 Failure of power supply to the alarm system is to be indicated.

2.5.6 Detector heads of an approved type are to be located in the machinery spaces so that all potential fire outbreak points are guarded.

2.5.7 The fire detection syslem is to be capable of being tested.

2.5.8 It is to be demonstrated to the Surveyor's satisfaction that detector heads are so located that air currents will not render the system ineffective.

2.5.9. A drawing showing lhe location of the fire detector heads and the fire indicator panel, is to be submitted.

Section 3

Control and Supervision of Machinery

3.1 General

3.1.1 When machinery, as defined in 1.2.2, is fitted with automatic or remote controls so that under normal operating conditions it does not require any manual intervention by the operators then it is to be provided with the arrangements specified in 3.2 to 3.7. Alternative arrangements which provide equivalent safeguards will be considered.

3.2 Oil engines for propulsion purposes

3.2.1 The following systems are to be provided with alarms:

System	Alaram
Lubricating oil pressure for the engine including gearing	Low
Lubricating oil pressure for the engine including gearing	Failure, see 3.2.2.
Cooling system (s) temperature	High
Cooling System (s) temperature	Excessively high, see 3.2.3.

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3.2.2 In the case of the lubricating oil system, in addition to the alarm indication as required by

3.2.1. at complete loss of lubricating oil the engine is to be slopped automatically or alternatively a second and separate alarm is to be provided giving audible and visible warning in the wheelhouse and in the engine room. The circuit and sensor employed for this automatic stop or alarm are to be additional to the alarm circuit and sensor required by 3.2.1.

3.2.3 in the case of cooling sysfem(s), in addition to the alarm indication as required by 3.2.1. a shutdown system for excessively high temperatures may be fitted, which is to be independent of the alarm system.

3.2.4 Prolonged running in a restricted speed range is to be prevented automatically, alternatively, indication of restricted speed ranges is to be provided al each control station.

3.3 Boilers

3.3.1 A system of water level-detection is to be tilled which will operate alarms and shut off automatically the oil supply to the burners when the water level falls to a predetermined low level.

3.3.2 The oil fuel is to be shut off aulomatically from the burners, and alarms are to operate on Flame failure and failure of combustion air supply delected by either low pressure at the fan until to slopping of the fan motor.

3.3.3 Where the burner flame(s) is/are extinguished and re ignited automatically in response to steam demand then after tolal flame failure re-ignition shall not take place until lhe furnace has been purged of explosive gases.

3.4 Auxiliary engines

3.4.1 The following systems for auxiliary engines of more than 37 kW (50 shp) are to be provided with alarms:

System	Alaram
Lubricating oil pressure	Low *
Cooling system temperature	High *
* These alarms may be combined with an automatic shutdown system, if fitted.	

3.5. Remote conrol for propulsion machinery

3.5.1. The following systems are to be provided with alarms :

System	Alaram
Operating medium for hydraulic or pneumatic coupling in propulsion system.	Low pressure
Operating medium for hydraulic or pneumatic remote control system for main engine.	Low pressure
Electrical supply to remote control system for main engine	Loss of supply

3.6 Controllable pilch propellers and transverse thrust units

3.6.1 Preteired alarms and safeguards are indicated in 3.6.2 to 3.6.4.

3.6.2 In the case of main propulsion systems, means are to be provided to prevent the engines and shafting being subjected to excessive torque due to changes in propeller pitch, alternatively an engine overload indicator may be fitted at each station for wtiich il is possible to control the pilch of the propeller.

3.6.3 Where transverse thrust units are remolefy controlled, means are to be provided al the remole conlrol station to slop the propulsion unit.

3.6.4. The following systems are to be provided with alarms:

System	Alaram
Hydraulic system pressure	Low
Power supply to the control system between the remote control station and hydraulic actuator.	Loss of supply

3.7 Steering gear

3.7.1 For power operated steering gear, safeguards and alarms are to be provided as indicated in 3.7.2 and 3.7.5.

3.7.2 Provision should be made at the bridge to ensure that the steering gear may be rapidly and effectively transferred to an alternative power and control system. Which may be manual.

3.7.3 Where the alternative steering gear system is also power operated this system should be independent of the main power system.

3.7.4. The control system for the alternative steering gear system required by 3.7.2 is to be

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Independent of the main steering gear control system.

3.7.5. The following systems are to be provided with alarams :

System	Alaram
Steering gear power system (s)	Failure
Steering gear control system (s)	Failure
Steerign gear hydraulic oil tank level	Low

3.8. Main propulsion shafting.

3.8.1. Where a tank supplying lubricating oil to the sterbush is fitted, it is to be located above the load waterline and is to be provided with a low level alaram.

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Chapter 8

Spear Gear

Contents

Section
1 General

Section 1
General

1.1 General

Adequate spare parts for the propelling and essential auxiliary machinery togethei with necessary tools for maintenance and repair are to be readily available for use.

1.1.2. Spare parts are to be supplied and their location is to be the responsibility of the Owner but must take in to account the' design and arrangements of the machinery and the intended service and operation of the vessel. Account should also be laken of the recommendations of the machinery manufacturer' and any applicable statutory requirements of the country of registration of the vessel.

1.2 Table of spare parts

1.2.1 For guidance purposes spate parts for main and auxiliary machinery installations are shown in the following Tables:-

- Table 1.2.1 - Spare parts for main internal combustion engines:
- Table 1.2.2 - Spare parts for auxiliary boilers;
- Table 1.2.3 - Spare parts for auxiliary air compressors.

Table 1.2.1. Maininternal combustion engines

Sr.	Item	Spare Part	Qty.
1	Main thrust block	Pads for one face of thrust block	1 Set
		Complee white metal thrust shoe of soild ring type	1
		Inner and outer race with rollers, where roller thrust bearings are fitted.	1
2	Cylinder valves	Exhaust valves, complete with casings, seats, springs and other fittings for one cylinder	1 set
		Air inlet valves, complete with casings, seats springs and other fittings for one cylinder	1 set
		Startingair valves, complete with casing, seat, spring and other fittings.	1
		Relief valve, complete	1
		Fueld valves of each size and type fitted complete with all fittings, for one engine.	1 / 4 Set
3		Special gaskets and packing of each size and type fitted for cylinder cover and cylinder liner for one cylinder	1 set

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Table 1.2.2. Auxiliary boilers			
Sr.	**Item**	**Spare Part**	**Qty**
1.	Tube stoppers or plugs	Tube stoppers of plugs, of each size sued, for boiler superheater and economizer tubes	10
2.	Fire bars	Fire bars for one boiler, whiere coal fired	Half set
3.	Oil fuel burners	Oil fuel burners complete, for one boiler	1 set

Table 1.2.3. Auxiliary air compressor			
Sr.	**Item**	**Spare Part**	**Qty**
1.	Piston rings	Rings of each size fitted for one piston	1 set
2.	Valves	Suction and delivery valves, complete, of each size fitted	Half Set

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Annexutre – V

(See rule 22)

Electrical Installations – Equipment and Systems

Contents

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3.	Cables
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5.	Control Gear
6.	Rotating Machines – Construction and Testing
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8.	Miscellaneous Equipment
9.	Trials

Section 1

General Information

1.1. General

1.1.1 The requirements of this Chapter apply to self-propelled and non self-propelled vessels for service on inland waterways unless otherwise stated. Attention should also be given to any relevant applicable requirements of National or Local Authorities.

1.1.2 In passenger vessels, services essential for safely are to be maintained under emergency conditions and the safety of vessel and personnel from electrical hazards is to be assured.

1.1.3 Electrical installations are to be constructed and installed in accordance wrth the relevant sections of this Chapter and are to be inspected and tested by the Surveyors. Compliance with the requirements of an acceptable National or International Standard may be accepted as meeting the requirements of this Chapter, subject to inspection and testing by the Surveyors.

1.1.4 Classification society will be prepared to give consideration to special cases or to arrangements which are equivalent to the Rules, Consideration will also be given to the electrical arrangements of small vessels and vessels to be assigned class notation for a specified limited service.

1.2 Plans

1.2.1 The plans and particulars in 1.2.2 to 1.2.4 are to be submitted in triplicate for approval.

1.2.2 Electrical Equipment: The arrangement plan and circuit diagram of lhe switchboard(s). Diagrams of the wiring system including cable sizes, type of insulation, normal working current in the circuits and the capacity, type and make of proteclive devices. Calculations of short circuit currents at main busbars and the secondary side of transformers are to be submitted.

1.2.3 Oil tankers, and similar vessels: A general arrangement of the vessel showing hazardous zones or spaces and the location of electrical equipment in such zones or spaces. A schedule of sale type electrical equipment located in hazardous zones or spaces giving details of the type of equipment fitted. the Certifying Authority, lhe certificate number and copies of the certificale.

1.2.4 Centralised, remote or automatic controls: See Ch.7.

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1.3 Additions or alterations

1.3.1 Additions of alterations, (temporary or permanent) to the approved load of an existing installation are not to be made until it has been ascertained that the current carrying capacity and the condition ot the existing accessories, conductors and switchgear are adequate for the proposed modification.

1.3.2 Plans for the proposed modifications are to be submitted for approval and the alterations or additions are to be carried out under the inspection, and to the satisfaction of the Surveyors.

1.4 Application

1.4.1 Except where a specific statement is made to the contrary, all requirements of this Chapter are applicable to both alternating current and direct current installations,

1.4.2 Direct current equipment is to operate satisfactorily under voltage fluctuations of plus 6 per cent and minus 10 per cent.

1.4.3 Alternating current equipment is to operate satisfactorily under voltage fluctuations of plus 6 per cent and minus 10 per cent at rated frequency, and under frequency fluctualions of ± 5 per cent at rated voltage.

1.4.4 Contactors and similar electromagnetic equipment are not to drop out at or above 85 per cent rated voltage.

1.4.5 For D.C. installations supplied by batteries. consideration is to be given to the supply voltage variations between the battery's full charged and minimum charged voltages. For installations with float charging, the maximum charging voltage is also to be considered.

1.5 Ambient reference conditions

1.5.1 The rating of electrical equipment is to be suitable for the temperature conditions associated with the geographical limits of the intended service. See also Ch.1.

1.6 Location and construction

1.6.1 Electrical equipment is to be placed in accessible and adequately lighted spaces clear of flammable material and heat sources. The spaces should be well ventilated, and the equipment should not be exposed to risk of-mechanical injury or damage from water, excessive moisture, steam, oil or any other dangerous fluid. Where necessarily exposed to such hazards, the equipment is to be suitably constructed or enclosed.

1.6.2 Live parts are to be efficiently shielded from any accidental contact.

1.6.3 All electrical apparatus and equipment is to be constructed and installed so as to avoid injury or electrical shock when handled or touched in the course of normal operation.

1.6.4 All nuts and bolls/screws used to connect or secure current carrying parts and working parts are to be effectively locked, to prevent them from working loose during operation.

1.7 Earthing

1.7.1 All non-current-carrying exposed metal parts of electrical machines or equipment are to be effectively earthed.

1.7.2 All accessible non-current-carrying metal parts of portable electrical apparatus rated in excess of 55 volts are to be earthed through a suitable- conductor nless equivalent safety provisions are made such as by double insulation or by an isolating transformer.

1.7.3 In general earthing connections are to be equal to the cross section of the current-carrying conductor up to 16 [mm^2]. Above this figure they are to be equal to at least half the cross section of the current carrying conductor with a minimum of 16 [mm^2]. Earthing connections which are not made of copper are not have a conductance not less than that specified for a copper earthing conneclion. These are to be securely installed and protected where necessary against mechanical damage and electrolytic corrosion. These are to be made in an accessible location and secured at both ends by corrosion resistant screws or clamps with cross section corresponding " to the earth conductor. Such screws or clamps are not to be used for other purposes. Suitable washers and conductor terminals are to be used so that a reliable contact is ensured.

1.7.4 The metallic sheaths of cables other than lhe measuring circuits are to be earthed at their two ends.

1.8 Creepage and Clearance

1.8.1 Distance between live parts and between live parts and earthed metal, whether across surfaces or in air, are to be adequate for the working voltages considering the nature of the insulating material and the transient over voltages developed by switch and fault conditions.

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1.9 Electrical equipment for use in explosive gas atmospheres

Where the Rules require electrical equipment to be of a "safe type", such equipment is to be certified for the gases/vapours involved. The equipment should conform to IEC publication 79. "Electrical Apparatus for Explosive Gas Atmospheres", or an equivalent national standard.

1.9.2. Copies of type test certificate by a competent independent Testing Authority are to be made available.

1.9.3 When "safe type" equipment is permitted in hazardous zones or spaces ail switches and protective devices are to interrupt all lines or phases and, where practicable, are to be located in a non-hazardous zone or space unless specifically permitted otherwise. Appropriate labels of non-flammable material are to be permanently affixed to such equipment, switches and protective devices. tot identification purposes.

Section 2
System Design

2.1 Design

2.1.1 Supply and distribution systems

2.1.1.1 The following syslems of generation and distribution are acceptable for parallel systems constant voltage :-

a) d.c. two-wire insulated.
b) a.c. single-phase two-wire insul3led,
c) a,c. three-phase, three-wire insulated,
d) a,c. three-phase, four-wire with neutral earthed but without hull return.

2.1.1.2 Systems ol generation and distribution, other than those specified above, will, upon application, be given special consideration.

2.1.2 Earth indication

2.1.2.1 Every insulated distribution system is to be provided with lamps or olher means to indicate the slate of insulation from earth. Where lamp indicators aie used, the lamps are to be of the metal filament type and their power is not to exceed 30 watts.

2.1.3 Number and rating of generating sets

2.1.3.1. The number and rating of service generaling sets are to be adequate to ensure the operation of services essential for the propulsion and safety of the vessel.

2.1.3.2 On oil tankers and similar vessels, where electrical power is required lot essential equipment, the generating plant and converting plant is to be of such capacity that this essential equipment can be opeiaied satisfactorily even wilh one generaling set or converting set out of aclion.
of power in

2.1.4 Emergency source passenger vessels

2.1.4.1 All passenger vessels are to be provided wilh an emergency source of electrical power. On vessels having a rule length of 25 [m] or more, the emergency source is to be situated outside the engine room and the space is to be constructed of watertight and fire resisting bulkheads and decks.

2.1.4.2 Where emergency generating sets are fitted they are to be capable of being started readily when cold.

2.1.4.3 If hand starting is demonstrated to be practicable, alternative means of starting are not required. Where hand starling is not practicable, other means are to be provided and, in general, should provide for at least 12 starts in a period of thirty minutes without recourse to sources within the machinery space.

2.1.4.4 The emergency source of power is to be either:

(a) A generator driven by a suitable prime mover with an independent fuel supply and with satisfactory starting arrangements, the fuel used is to have a flash point of not less than 43^0C or

(b) An accumbulator (storage) battery capable of carrying the emergency load without rechanrging or excessive voltage drop.

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2.1.4.5 An indicator is to be mounted in the machinery space, or in the wheelhouse, to indicate when any accumulator battery filled in accordance with 2.1.4.4 is being discharged.

2.1.4.6 The emergency switchboard is to be installed as near as is practicable to the emergency source of power.

2.1.4.7 The emergency switchboard may be supplied from the main switchboard during normal operation.

2.1.4.8 The power available is to be sufficient to supply all services necessary for the safety of passengers and crew in an emergency, due regard being paid to such services as may have to be operated simultaneously. Special consideration is to be given to emergency lighting in all alleyways, stairways and exits, in the machinery spaces and in the control stations where radio, main navigating or central fire recording equipment or the emergency generator is located, to fire detection and alarm systems, to the emergency fire pump if electrically driven, automatic sprinkler systems, if fitted, and to navigation lights. The power is to be adequate for a period of at least 3 hours.

2.1.5 Essential services

2.1.5.1 Where essential services are duplicated, they are to be served by individual circuits separated throughout their length as widely as is practicable and without the use of common feeders, protective devices or control circuits.

2.1.6 Diversity factor

2.1.6.1 Circuits supplying two or more final sub-circuits are to be rated in accordance with the iriia| connected load subject, where justified, to the application of a diversity lactor. Where spare ways (feeders) are provided on' a section or distribution board, an allowance for future increase of load is to be added to the total connected load before application of any diversity factor.

2.1.6.2. The diversity factor maybe applied when calculating cable size and when calculating the rating of switchgear and fusegear.

2.1.6.3. The diversity factors are not applicable to supply cables to distribution switchboards for lighting and healing.

2.1.7. Lighting circuits

2.1.7.1 Lighting circuits are to be supplied by final sub-circuits, which are separate from those for heating and power. This provision need not be applied to cabin fans and small wardrobe heaters.

2.1.7.2 A final sub-circuit of rating exceeding 15 amperes is not to supply more than one point.

2.1.7.3 A final sub-circuit of rating 15 amperes or less is not to supply more than the following number of lighting points; -

10 for 24-55 V circuits
14 for 110-127 V circuits
18 for 220-250 V circuits

This provision is nol applicable to final sub-circuits for cornice lighting, panel lighting and electric signs where landholders are closely grouped. In such cases, the number of points is unrestricted provided ihe maximum operating current in the sub-circuit does not exceed 10 amperes.

2.1.7.4 Lighting of unattended spaces, such as cargo spaces is to be controlled by multi-pole linked switches located outside such spaces. Provision is to be made for the complete isolation of these circuits and locking in the "OFF" position of the means of control.

2.1.7.5 Emergency lighting is to be fitted in accordance with 2.1.4.

2.1.6 Motor circuits

2.1.8.1 A separate final sub-circuit is to be provided for every motor required for essential services and for every motor of 1 [kW] or more.

2.1.9 Motor control

2.1.9.1 Every electric motor is to be provided with an efficient means of starting and stopping so placed as to be easily accessible to the person controlling the motor.

2.1.9.2 Every motor required for essential services and every motor of 0.5 [kW] or morels to be provided with the control apparatus as mentioned in 2.1.9.4 to 2.1.9.8.

2.1 9.3 When motor control gear is being selected, me maximum current of the motor Is to be taken as its rated full load current.

2.1.9.4 Efficient means of isolation are to be provided so that all voltage may be cut off from the motor and any associated apparatus including any automatic circuit breaker.

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2.1.9.5 Where the primary means of isolation (viz. thai provided at the switchboard, section board or distribution fuse board) is remote from a motor, one of the following provisions is to be made :-

a) An additional means of isolation fitted adjacent to the motor; or

b) Provision made for locking the primary means of isolation in the OFF position; or

c) Provision made so thai the fuses in each line can be readily removed and retained by authorized personnel.

2.1.9.6 Means to prevent the undesired restarting after a stoppage due to low volts or complete loss of volts are to be provided. This does nol apply to motors where a dangerous condition might result from lhe failure to restart automatically e.g. steering gear molor. It is however, to be ensured that lhe lotal starling current of motors having automatic re-start will nol cause excessive voltage drop or overcurrent on the installation.

2.1.9.7 Means for automatic disconnection of the supply in the event of excess current due to mechanical overloading of the motor are to be provided. (This does nol apply to steering gear motors).

2.1.9.8 Where fuses are installed to protect polyphase motor circuits, means are to be provided to protect the motor against unacceptable overload in the case of single phasing.

2.1.10 Remote stops for ventilation fans and pumps

2.1.10.1 Ventilating fans for machinery and cargo spaces are to be provided with means for slopping lhem from easily accessible control stations located outside such spaces.

2.1.10.2. Motors driving forced and induced draught fans, independently driven pumps delivering oil to main propulsion machinery for bearing lubrication and piston cooling, oil fuel transler pumps, oil fuel unit pumps and other similar fuel pumps, fuel and lubricating oil purifiers and iheir attached pumps aie to be fitted with remote controls situated outside the space concerned so thai ihe electrical supply thereto can be disconnected in the event of fire arising in the space in which they are located.

2.1.10.3 In passenger vessels all power ventilation systems, except cargo and machinery spaces ventilation, which is to be in accordance with 2.1.10.1, are to be fitted with master controls so that all fans may be stopped from either of two separate positions which are to be situated as far apart as practicable.

2.1.11 Steering gear

2.1.11.1 Where electrical control of the steering system is fitted, an independent alternative control system is to be installed. This may be a duplicate electrical control system or control by other means.

2.1.11.2 Provision istobemadeon the bridge to transfer the steering control instantaneously to lhe alternative means of conlrol.

2.1.11.3 Indicators for running indication of steering gear motors are to be installed on lhe bridge.

2.1.11.4 Audible and visual alarms are to operate at the steering positions for failure of steering gear power system and failure of steering gear control system.

2.1.12 Fire dejection, alarm and extinguishing systems on passenger vessels

2.1.12.1 Where electrically driven emergency fire pumps are installed in accordance with Ch.9 the supply to such pumps is not to pass through the main machinery space.

2.1.12.2 Any fire alarm system is to operate both audible and visual signals at the fire detection control slation(s).

2.1.13 Navigation lights

2.1.13.1 Each navigation light is to be controlled and protected in each insulated pole by a switch and fuse or circuit breaker mounted in the distribution board.

2.1.13.2 Automatic indication of failure is to be provided unless the lights are visible from the bridge.

2.1.13.3. Any statutory requirements of the country of registration are to be complied with and may be accepted as an alternative to the above.

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2.1.14 Size of batteries and charging facilities

2.1.14.1 Where batteries are used for starting main engines, they are to be of adequate capacity to meet the requirements of Ch.4.

2.1.14.2 Adequate charging facilities are to be provided, and where batteries are charged from line voltage by means of a series resistor, protection against reversal of current is to be provided when the charging voltage is 20 per cent of line voltage or higher. Means are also to be provided to isolate the batteries from the low voltage system when being charged from a higher voltage system.

2.1.15 Heating and cooking equipment

2.1.15.1 Every heating or cooking appliance rs to be controlled as a complete unit by a multi-pole linked switch mounted in the vicinity of the appliance.

2.1.15.2 In the case of small heaters, for individual cabins or similar small dry accommodation spaces where lhe floor coverings, bulkheads and ceiling linings are of insulating materials, a single pole switch is acceptable.

2.1.15.3 Heating arrangements ol the exposed element type are not to be used in any location.

2.1.16 Temporary external supply/shore connection.

2.1.16.1 Where arrangements are provided for the supply of electric power from a source on shore or elsewhere, a connection box is to be installed In an easily accessible location in a manner suitable for the convenient reception of flexible cables from lhe external source. This box should contain a circuit-breaker or isolating switch and fuses and terminals of ample size and suitable shape to facilitate a satisfactory connection. The mechanical stress of the portable cable is to be conveyed directly to the metallic framework and not to electrical connectors. Suitable cables, permanently fixed are to be provided, connecting the circuit breaker/isolating switch in the connection box to a linked switch and/or circuit breaker at the main switch board.

2.1.16.2 For alternating current systems an earthed terminal is to be provided for the reception of three-phase external supplies with earthed neulrals.

2.1.16.3. The external conneclion is to be provided with an indicator at the main switchboard in order to show when the cable is energized:

2.1.16.4 Means are to be provided for checking the polarity (for direct current) or the phase sequence (for three-phase alternating current) of the incoming supply. This device should be connected between the incoming connectors and the interrupting device in the connection box.

2.1.16.5 A notice is to be provided at the connection box giving complete information on the system of supply and the normal vohage (and frequency for alternating current) of lhe vessel's installed system. Full details of the procedure for effecting the connection are to be given on this notice.

2.1.16.6 Alternate arrangements for providing a temporary external supply will be specially considered.

2.2 Protection

2.2.1 General

2.2.1.1. Installations are to be protected against accidental over currents including short circuits. The choice, location and characteristics of the protective device are to provide complete and co-ordinated protection to ensure:-

a) Elimination of the fault to reduce damage to the system and hazard of fire.

b) Continuity of service so as to maintain, through the discriminative action of the protective devices, the supply to circuits not directly affected by the fault.

2.2.2 Protection against overload

2.2.2.1 Protection against overloads may be provided by cifcurt-breakers, automatic switches or fuses. The tripping characteristics of these devices are to be appropriate to the system. Fuses rated above 320 amperes are not to be used for protection against overload, bul maybe used for short- circuit protection.

2.2.3 Protection against short-circuit

2.2.3.1 Protection against short-circuit currents is to be provided by circuit-breakers or fuses.

2.2.3.2 The breaking capacity of every protective device is to be not less than the maximum value of the short-circuit current which can flow at the point of installation at the instant of contact separation.

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2.2.3.3 The making capacity of every circuit-breaker or switch intended to be capable of being closed, if necessary, on short circuit, is to be not less than the maximum value of the short-circuit current, at the point of installation. On alternating current this maximum value corresponds to the peak value allowing for maximum asymmetry.

2.2.3.4 Every protective device or contactor nol intended for short circuit interruption is to be adequate for the maximum shorl-circuil current which can occur at the point of installation having regard to the time required for the short circuit to be removed.

2.2.3.5 In the absence of precise data of rotating machines the following short-circuit currents at the machine terminals are to be assumed. The short circuit current is to be the sum of short circuit currents of generators and that of motors;

a) Direct current systems
Ten times full load current tor generators normally connected (including spare; Six times full load current tor motors simullaneously in service;

b) Alternating current systems.
Ten times full load current for generators normally connected (including spare) simultaneously in service.

Three limes full toad current for moiors simullaneously in service.

2.2.4 Combined circuit-breakers and fuses.

2.2.4.1 The use of circuit-breaker of braking capacity less than the prospective short circuit current at the point ol installation is permitted, provided that it is preceded on the generator side by fuses, or by a circuit-breaker having at least the necessary breaking capacity. The generator breakers are nol to be used to; this purpose.

2.2.4.2 Fused circuit-breakers wilh fuses connected to the load side may *be* used where operation of the circuit-breaker and fuses is co ordinated.

2.2.4.3 The characteristics of lhe arrangement are to be such that :

a) When the short-circuit current is broken the circuii-breaker on the ioad side is not to be damaged and is to be capable of further service.
b) When the circuit – breaker is closed on the hsort circuit current the remainder of the installatin is not to be damaged. However, it is admissible that the circuit-breaker on lhe load side may require servicing after the fault has been cleared.

2.2.5 Protection of circuits

2.2.5.1Short circuit protection is to be provided in each live pole of a direct current system and in each phase of an alternating current system.

2.2.5.2 Protection against overloads is to bé provided as follows;-

a) Two-wire direct current or single-phase alternating current system - at least one line or phase.
b) Insulated three-phase alternating current system - at least two phases.
c) Earthed three-phase alternating current system - all three phases.

2.2.5.3 No fuse, non-linked switch.or non-linked circuit-breaker is to be inserted in an earthed conductor. Any swiich or circuit-breaker lined is to operate simultaneously in the earthed conductor and the insulated conductors.

2.2.5.1 These requirements do not preclude the provision (for test purposes) of an isolating link to be used only when the other conductors are isolated.

2.2.6 Protection of generators

2.2.6.1In addrtion to over-current protection, the provisions of 2.2.6.2 to 2.2.6.7 are 10 be adhered to as a minimum.

2.2.6.2 For generators nol arranged to run in parallel a mulii-poie circuil-breaker arranged to open simultaneously all insulated poles or in the case of generators tated at less than 50 [kW] a multi-pole linked switch with a fuse in each insulated pole on ine genera'.c: side is to be provided. The fuse rating in such cases is to be maximum 125 per cent of the generator rated current.

2.2.6.3. for generations arranged to run in parallet a circuit – breaker arranged to open simultaneously at insulate sales to be provided. This circuit breakets to be provided with :

a) For direct current generators, instanaeous reverse – current protection operating at not more than 15 per cent rated current.

b) for alternating current generation.

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i) A reverse-power protection, with time delay selected and sel wiihin the limits of 2 per cent to 15 per cent of full load to a alue fixed in accordance with characteristics of primemovers.

ii) A device for protection against the effects of parallel connection in opposite phase.

2.2.6.4 The reverse-current protection is to be adequate to deal with the reverse-current conditions emanating from the network, e.g. from winches. The reverse-power protection specified for ailernating current generators may be replaced byotherdevicesensuring adequate projection of the prime movers.

2.2.6.5 Generator circuit-breakers are normally to be provided wilh under votlage release.

2.2.7 Protection of feeder circuits

2.2.7.1 Isolation and protection of each main dislribulion circuit is to be ensured by a mulli-pole circuit-breaker or multi-pole switch and fuses. The provisions of 2.2.2. 2.2.3 and 2.2.5 are to be complied with, The protective devices are to allow excess current to pass during the normal accelerating period of motors. Where multi-pole swilch and fuses are used, the fuses are generally to be inslalled between the busbars and the switch.

2.2.7.2 Circuits which supply motors fitted with overload protection may be provided with short-circuit protection only.

2.2.7.3. Motors of rating exceeding 0.5 [kW] are to be protected individually against overload and short- circuit. The short-circuit protection can be provided by the same protective device for the motor and its supply cable. The overload protection may be replaced by an overload alarm, if desired by the Owner.

2.2.8 Protection of power transformers

2.2.8.1 The primary circuits of power transformers ate to be protected against short- circuit byeircuil-bieskers or fuses. The rating of fuses or the setting for overcurrenl releases of circuit breakers is not to exceed 125 per cent of rated primary current.

2.2.8.2 When transformers are arranged to operate in parallel, meansare to be provided for isolation of the secondary circuits. Switches and circuit-breakers are to be capable of withstanding surge currents.

2.2.9 Protection of lighting circuits

2.2.9.1 Lighting circuits are to be provided with overload and short- circuil protection.

2.2.10 Protection of meters, pilot lamps capacitors and conifol circuits

2.2.10.1 Protection is to be provided or voltmeters, voltage clls of measuring instrumenls earth indicating devices and pilot lamps, together with iheir connecting leads by means of protective devices Titled to each insulated pole or phase.

2.2.10.2 A pilot lamp installed as an integral part of another item of equipment need not be individually protected', provided il is lilted in the same enctosure. Where a fault in a pilot lamp would jeopardise the supply to essential equipment such lamps are to be individually protected.

2.2.11 Protection of batteries

2.2.11.1 Accumulator batteries olher than engine starling batteries are to be protected against short circuit by devices, in each insulated pole, plgced at a position adjacent to the battery compartment.

2.2.12 Protection of communication circuits

2.2.12.1 Communication circuits olher than those supplied from primary batteries are to be protected against overload and short-circuit,

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Section 3

Cables.

3.1 General

3.1.1 Cables are to be in accordance with an acceptable National or International Standard, due legard being given to the ambient conditions stated in 1.5.

3.2 Insulating materials

3.2.1 Permitted insulating materials with maximum rated conductor temperatures are given in Table 3.2.1.

3.2.2 The rated operating temperature of the insulating material is to be at least 10°C higher than the maximum ambient temperature liable to be produced in lhe space where the cable is installed.

3.2.3 Where a rubber or rubber like material with maximum conductor lempeialure greater ihar. 60°C is used, it is to be readily identifiable.

3.3 Sheaths and protective coverings

3.3.1 Cables are to be protected by one or more of the following, and the material of the shealh or protective coveting is to -be compalible wrlh the material of the insulation:-

a) Shealh
 Lead-alloy
 Copper
 Non-metallic

b) Protective covering
 Steel-wire armour
 Steel-tape armour
 Metal-braid armour (basket weave)
 Fibrous braid

3.3.2 Unsheathed cables, e.g. rubber insulated taped and braided or equivalent, may be used only if installed in conduil.

3.3.3 Non-metallic sheath : Polychloroprene compound, polyethytene chloride compound and chlorosulphorated polyethylene may be used lor impervious sheaths. Other compounds will be given due consideration.

Table 3.2.1. : Insulating materials

Insulating Materials	Max. rated conductor temp. °C
Elastomeric Compounds	
Natural or synthetic rubber (general pupose)	60
Rubber	
Butyl rubber	80
Ethylene propylene rubber	85
Silicone rubber	95
Thermoplastic compounds	
Polyvinyl chlorider (General purpose)	60
Polyvinyl chlorider (heat resisting quality)	75
Other Materials	
Minerals	95

Notes :

1. Silicone rubber and mineral insulation may be used for higher temperatures (up to 150°C for silicone rubber and upto 250°C for mineral insulation) when installaed where they are not liable to be touched by personnel, Proposals for such installations will be specially considered.

2. The temperature of the conductor is the combination of ambient temperature and temperature rise due to load.

3. Other insulating material siwllbe considered.

3.3.4. Fibrous braid : Textile braid is to be of cotton, hemp, asbestos, glass or to the equivalent fiber, and is to be of strength suitable for the size of the cable. It is to be effectively impregennated with a compound which is resistant to moisture and which is flame restarding.

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3.3.5 Cables fitted in the following locations:-
- Decks exposed to we-alher;
- Bathrooms;
- Cargo holds;
- Machinery spaces;

or any other location where water condensation or harmful vapour (e.g. oil vapour) may be present are to have an impervious sheath. In permanently wet situations, metallic sheaths are to be used for cables with hygroscopic insulation.

3.3.6 All cables are to be of flame-retard ant type or fire-resisling type, except that non flame-relardanl cables may be accepted for final circuits only where cables are installed in melallic conduils having internal diameler not exceeding 25 (mm] and provided'lhe conduils ate electrically and mechanically continuous.

3.4 Voltage rating

3.4.1 The rated voltage of any cable is to be not lower than the nominal voltage ot lhe circuit for which it is used.

3.4.2 The vollage drop from the- main switchboard bus bars to any point in the installation when lhe cables are carrying maximum current under normal conditions ot service is not to exceed 6 per cent of the nominal vollage.

3.5 Current rating

3.5.1 The highest continuous load carried by a cable is nol to exceed its current rating. The diversity factor of the individual loads and the duration of the maximum demand may be allowed for in estimating the maximum continuous load and is to be shown on the plans submitted for approval.

3.5.2 In assessing lhe current fating of lighting circuits, every lampholder is to be assessed at the maximum load likely to be connected to it, with a minimum of 60 W. unless the fitting is so connected as to take only a lamp rated at less than 60 w.

3.5.3 Castes supplying winches, cranes, windlasses and capstans are to be suitably rated for their duty, Unless the duly is such as to require a longer time rating, cables for winch or crane motors may be half hour rated on the basis of the half hour [kW] rating of (he motors.

Cables for windlass and capstan motors are to be not less than one hour rated on the basis of the one hour [kW] rating of the motor. In all cases the rating is to be subject to the vollage drop being within the specified limits.

3.5.4 The current ratings given in Tables 3,5.1 to 3.5.5 are based on the maximum operating conductor temperatures, given in Table 3.2.1. Alternatively current rating in accordance with an acceptable National or International standard may be applied. See 3.1.1.

Table 3.5.1. General purpose rubber and PVC insulation current rating (based on ambient temp. 45°C)

Nominal cross section	Single core	2 core	3 or 4 core
[mm²]	Amperes	Amperes	Amperes
1	8	7	6
1.5	12	10	8
2.5	17	14	12
4	22	19	15
6	29	25	20
10	40	34	28
16	24	46	38
25	71	60	50
35	87	174	61
50	105	89	74
70	135	115	95
95	165	140	116
120	190	162	133
150	220	187	154
185	250	213	175
240	290	247	203
300	335	285	235
	d.c a.c.	d.c a.c.	d.c a.c.
400	390 380	332 323	273 266
500	450 430	383 365	315 301
630	520 470	442 400	364 329

3.6 Correction factors for current rating.

3.6.1. Bunching of cables : Where more than six cables belonging to the same circuit are bunched together a correction factor of 0.85 is to be applied.

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Table 3.5.2 : Heat resisting PVC insulation current rating (Based on ambient temp 45°C)

Nominal cross section	Single Core	2 Core	3 or 4 Core
[mm²]	Amperes	Amperes	Amperes
1	13	11	9
1.5	17	14	12
2.5	24	20	17
4	32	27	22
6	41	35	29
10	57	48	40
16	76	65	53
25	100	85	70
35	125	106	88
50	150	128	105
70	190	162	133
95	230	196	161
120	270	230	189
150	310	264	215
185	350	298	245
240	415	353	291
300	475	404	333

	d.c.	a.c.	d.c.	a.c.	d.c.	a.c.
400	570	560	485	475	400	390
500	650	620	550	530	455	435
630	740	670	630	570	520	470

Table 3.5.3 : Butyl insulation current rating (Based on ambient temp 45°C)

Nominal cross section	Single Core	2 Core	3 or 4 Core
[mm²]	Amperes	Amperes	Amperes
1	15	13	11
1.5	19	16	13
2.5	26	22	18
4	35	30	25
6	45	38	32
10	63	54	44
16	84	71	59
25	110	94	77
35	140	119	98
50	165	140	116
70	215	183	151
95	260	221	182
120	300	255	210
150	340	289	238
185	390	332	273
240	460	391	322
300	530	450	371

	d.c.	a.c.	d.c.	a.c.	d.c.	a.c.
400	610	590	519	502	427	413
500	690	640	587	544	403	448
630	790	690	372	587	553	483

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Table 3.5.4 : Ethylyene propylene rubber cross linked polyethylene insulation current rating
(Based on ambient temp 45°C)

Nominal cross section	Single Core	2 Core	3 or 4 Core
[mm²]	Amperes	Amperes	Amperes
1	16	14	11
1.5	20	17	14
2.5	28	24	20
4	38	32	27
6	48	41	34
10	67	57	47
16	90	77	63
25	120	102	84
35	145	123	102
50	180	153	126
70	225	191	158
95	275	234	193
120	320	272	224
150	365	310	256
185	415	353	291
240	490	417	343
300	560	476	392
	dc ac	dc ac	dc ac
400	650 630	553 536	445 441
500	740 680	629 578	518 476
630	840 740	714 629	588 516

Table 3.5.5 : Silicon rubber, mineral insulation current rating
(Based on ambient temp 45°C)

Nominal cross section	Single Core	2 Core	3 or 4 Core
[mm²]	Amperes	Amperes	Amperes
1	20	17	14
1.5	24	20	17
2.5	32	27	22
4	42	36	29
6	55	47	39
10	75	64	53
16	100	85	70
25	135	115	95
35	165	140	116
50	200	175	140
70	255	217	179
95	310	264	217
120	360	306	252
150	410	349	287
185	470	400	329
240	570	485	400
300	660	560	460

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Table 3.6.1 : Correction factors for temperature

Insulation	Correction factor for ambient temperature in °C						
	25	30	35	40	45	50	55
Rubber of PVC (general purpose)	1.53	1.41	1.29	1.15	1.00	0.82	0.58
PVC (heat – resistant quality)	1.29	1.22	1.15	1.08	1.00	0.91	0.82
Butyl Rubber	1.25	1.2	1.13	1.07	1.pp	0.93	0.85
Ethylyene propylene rubber cross-linked polyethylene	1.22	1.17	1.12	1.06	1.00	0.94	0.87
Mineral, silicons rubber	-	-	-	1.05	1.00	0.95	0.89

Notes :

1. For cables in refrigerated chambers and holds and for vessels restricted to service in non – tropical waters, correction factors for 35°C may be acceptable.

2. Correction factors for intermediate values of the ambient temperature can be ascertained by interpolation.

Table 3.6.2 : Correction factors for intermittent rating

Correction Factor	Half – hour rating		One – hour rating	
	With metallic sheath [mm^2]	Without metallic sheath [mm^2]	With metallic sheath [mm^2]	Without metallic sheath [mm^2]
1.00	Upto 20	Upto 75	Upto 67	Upto 230
1.10	21-40	76-125	68-170	231-400
1.15	41-65	126-180	171-290	401-600
1.20	66-95	181-250	291-430	-
1.25	96-120	251-320	431-600	-
1.30	131-170	321-400	-	-
1.35	171-220	401-500	-	-
1.40	221-270	-	-	-

3.6.2 Ambient temperature : The current retaings in Table 3.5.1 to 3.5.5 are based on an ambient temperature of 45°C. For other values of ambient temperature the correction factors shown in Table 3.6.1 are to be applied.

3.6.3 Intermittent Service : Where the load is intermittent, the correction factors in Table 3.6.2 may be applied for half hour and one hour ratings. In no case is a shorter rating than one half hour rating to be used, whatever the degree of intermittency.

3.7 Testing

3.7.1 Tests in accordance with an acceptable National of International Standard are to be made at the manufacturer's works prior to dispatch.

3.8 Connections between entrained vessels

3.8.1 Cables are to be suitable for use in the connections between entrained vessels i.e. are to be flexible, robuse and of commensurate cross-section area.

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3.8.2 The connection is to include provisions for the continuity of oui-of-balance or earth-fault current return. The connecting device is to include provisions to ensure that this circuit is closed before, and opened after, the live circuits.

3.8.3 Terminal plugs and sockets, if used, are to be so arranged that any exposed pins cannot be energized.

3.8.4 Where hull-return systems are used, hull polarity is to be compatible.

3.9 Installation of cables

3.9.1 Cable runs are to be, as far as practicable, straight and accessible and as high as possible - above bilges.

3.9.2 Cables having insulating materials with different maximum-rated conductor temper atures are not to be bunched together, or, where this is not practicable, the cables are to be operated so thai no cable reaches temperature higher than that permitted for the lowest temperature-rated cable in the group.

3.9.3. Cables having a proleclive covering which may damage the covering of other cables are not to be bunched with those other cables, The minimum internal radius of bends of installed cables is to be generally in accordance with following :

4d	For cables without braiding. Armouring or other metal sheath and with an overall diameter not exceeding 25 [mm]
6d	For all other cables
(d = overall diameter of cable)	

3.9.4. Cables, aw to be effectively supported and secured in a manner that prevents damage to their coverings.

3.9.5. Supports and accessories are to be robust and are to be of corrosion-resistant material or suilably corrosion inhibited before ereciion.

3.5.6. The distance between supports, for horizontal as well as vertical runs of cables is to be chosen according to the type size of cable but generally in accordance with Table 3.9.1.

3.10 Mechanical protection of cables

3.10.1 Cables exposed to risk of mechanical damage are to be protected by metal channels of casing or enclosed in sleel conduit unless the protective covering (e.g. armour or sheath) is adequate to withstand the possible damage.

Table 3.9.1. : Distance between supports

External diameter of cable		Non armoured cables	Armoured cables
Exceeding	Not exceeding		
[mm]	[mm]	[mm]	[mm]
-	8	200	250
8	13	250	300
13	20	300	350
20	30	350	400

3.10.2 Cables in spaces where there is exceptional risk of mechanical damage (e.g. on weather decks, in cargo hold areas and inside the cargo holds) and also below the floor in engine room, are to be suitably protected, even if armoured, unless the sleel slructure affords adequate protection.

3.10.3 Metal casings for mechanical protection of cables are to be efficiently protected against corrosion.

3.11 Earthing of metaj coverings

3.11.1 Metal covering's of cables are to be effectively earthed at both ends ol the cable, excepl in final sub-circuits, where earthing at the supply end only will be considered adequate. This does not necessarily apply to instrumentation cables where single point earthing may be desirable for technical reasons.

3.11.2 The electrical continuity of all metal coverings of cables throughout the length of the cable, particularly at joints and tappings, is to be ensured,

3.11.3 The lead sheath oflead-shealhed cables is not to be used as the sole means of earthing the non-current carrying parts of items of equipment.

3.12 Penetration of bulkheads and decks by cables

3.12.1 Penetration of watertight bulkheads or dects is to be carried out with either individual watertight glands or with packed watertight boxes carrying several cables. In either case, the watertight integrity and strength of the bulkheads and decks are to be maintained. Where cables with polyvinyl chloride insulation me being installed, particular care is to be taken

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to avoid damage to the sheathing during the Titling of waleriighl bulkhead glands.

3.12.2 Where cables pass through non-waterlighl bulkheads or structural steel, the holes are to be bushed, in order to protect the cables, with lead or other approved material which will prevent damage to the cables by abrasion. If the sleel is 6 [mm] thick, adequately rounded edges may be accepted as the equivalent of bushing.

3.12.3 Cables passing through decks are to be protected by deck lubes or duels.

3.12.4 Materials used for glands and bushings are to be such that thefe is no risk, of corrosion.

3.12.5 Where rectangular holes are cut in bulkheads or structural sleel [he corners are to be adequately rounded,

3.13 Installation of cables in pipes and conduits

3.13.1 Installation of cables in pipes and conduits is to be carried out in such a manner that there is no damage to Ihe cable covering.

3.13.2 Metal conduil systems are to be earthed and are to be mechanically and electrically continuous across joints. Individual short lengths of conduit need not be earthed.

3.13.3 The internal radius ol bend of pipes and conduit is to be not less Ihan thai laid down for cables, provided thai for pipes exceeding 64 [mm] diameler the internal radius of bend is nol less than twice Ihe diameter of the pipe.

3.13.4 The drawing-in (ratio-of the sum of the cross the cross-seclional areas of the cables, based on (heir external diameter, to the internal cross-
section area of the pipe) is not to exceed 0.4.

3.13.5 Expansion joints are to be provided where necessary.

3.13.6 Cable pipes and conduits are to be adequately and effectively protected against corrosion. Where necessary, openings are to be provided at the highest and lowest points to permit air circulation and to prevent accumulation of water.

3.13.7 Where cables are laid in trunks, the trunks are to be so constructed as not to afford passage for fire from one deck or compartment to another.

3.13.8 Non-metallic ducting or conduit is to be of flame-retardanl material. PVC conduil is not to be used in refrigerated spaces or on ope'n decks, unless specially approved.

3.14 Cables for alternating current

3.14.1. Generally, multi-core cables are to be used in A.C. installations. Where il is necessary to use single-core cables for allernaling current circuits rated in excess of 20 amperes the requirements of 3.14.2 to 3.14.8 are to be complied with.

3.14.1 Cables are to be either non-armoured or armoured with non- magnetic material.

3.14.3 If installed in pipe or conduit, cables belonging to Ihe same circuit are to be installed in Ihe same conduit, unless the conduit or pipe is of non-magnetic material.

3.14.4 Cable clips are to include cables of all phases of a circuit unless the clips are of non-magnetic material.

3.14.5 When installing two three or four single-core cables forming respectively single-phase circuits, three-phase circuits or Ihree-phase 3nd neulral circuits, the cables are to be in contact wilh one another, as far as possible. In any case, the distance between the external covering of two adjacent cables is not to be greater Ihan one diameler.

3.14.6 In the case of circuits using two or more parallel connected cabies per phase, all cables are to have the same length and cross sectional area.

3.14.7 Where single core cables of rating exceeding 50 amperes are used, magnetic material Is not to be placed between single-core cables of a group. If these cables pass through steel plates, all cables of the same circuit are to pass through the plale or gland so constructed that there is no magnetic material between the cables, and suitable clearance is provided between the cable core and magnetic material. This clearance, wherever practicable, is not to be less than 75 [mm] when the current exceeds 300 amperes. For cuirenls between 50 amperes abd 300 amperes the clearance may to proportionately reduced.

3.14.8. If single – core cables of current rating greater than 250 amperes are run along a steel bulkhead, wherever practicable the cables should be spaced away from ihe steel.

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3.15Cable ends

3.15.1 The ends of all conductors of cross-sectional area greater than 4 [mm^2] are to be lilted with soldering sockets, compression type sockets or mechanical clamps. Corrosive fluxes are not to be used.

3.15.2 Cables having hygroscopic insulation (e.g. mineral insulated) are to have their ends sealed against ingress of moisture.

3.15.3. Cables with a supplementary insulating belt-beneath the protective sheath are to have additional insulation at those points where the insulation of each core makes or may make contact with earthed metal.

3.16 Joints and branch circuits in cable systems

3.16.1 Cable runs aie normally not to include joints. However, if a joint is necessary it is to be carried so that all conductors are adequately secured, insulated and protected from atmospheric action, Terminals and busbars are to be of dimensions adequate for the cable rating.

Section 4
Switch boards

4.1 General

4.1.1 Switchboards, section boards and distribution boards are to be constructed of or enclosed with non-flammable, non-hydroscopic material and are to be so installed that live parts are sufficiently guarded and adequate space is provided for maintenance. Also they are to be prolecled where necessary in way of pipes etc.

4.1.2 All measuring instruments and all apparatus controlling circuits are to be clearly and indelibly labeled for identification purposes. An indelible label is to be permanently secured adjacent to every fuse and every circuit breaker and marked with particulars of the full load current of Ihe generator, motor or cable which the fuse or circuit breaker protects. Where inverse lime limit and/or reverse current devices are provided in connection with a circuit breaker, the appropriate sellings of these devices are to be staled on the label. Name plales are to be of tlame rclaidanl material.

4.2 Instruments

4.2.1 Sufficient instrumentation is to be provided for measuring voltage, current, frequency and. for ailernaling current generators above 50 [kW].

4.2.2. Where alternating current generators are requires to operate in parallel synchronizing arrangement are to be fitted.

4.3 Instrument transformers

4.3.1 The secondary windings of instrument transformers are to be earthed.

4.3 Switchgear

4.4.1 Circuit breakers and switches are to be of the air break type and are to be consirucled in accordance with an acceplabte National or International Standard.

4.4.2 Report of tests to establish the capacity of circuit-breakers are to be submitted for consideration when requited.

4.4.3 Overcurrent releases are to be calibrated in amperes and sellings marked on the circuit-breaker.

4.4 Fuses

4.5.1 Fuses are to comply with an acceptable National or International Standard.

4.5.2 Fuse links and fuse bases are to be marked with particulars of rated current and rated voltage. Each fuse position is to be permanently and indelibly labeled with the current carrying capacity of the circuit prolecled by it and v/ilh the appropriate approved size of fuse or replaceable element.

4.6 Testing

4.6.1. Before installation, switchboards complete of in section swith all components are to pass the following tests at the manufacturer's works and a certificate furnished. A high vollage lest is to be carried oul in all switching and control apparatus for systems greater than 60V with a test voltage of 1000V plus twice the rated voltage with a minimum of 2000V at any frequency between 25 and 100 Hz for one minute applied between (a) all current-carrying

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parts connected together and earth and (b) between current carrying parts of opposite polarity or phases,

4.6.2 For systems of 60V or less the test shall be at 500V for one minute.

Instruments and ancillary apparatus, may be disconnected during the high voltage test. Immediately after the high voltage test, the insulation resistance between (a) all current-carrying parts connected together and earth and (b) between current carrying parts of opposite polarity or phase, shall not be less than 1 Megohm when tested with a direct current voltage of at least 500V.

4.6.5. Functional tests. The correct functions of the installation components in line with the connections intended to be made have to be checked as far as possible.

Section 5
Control Gear

5.1 General

5.1.1 Control gear is to comply with an acceptable National or International Standard, amended where necessary for ambient temperature.

5.1.2 Control gear, including isolating and reversing switches, is to be so arranged that shunt field circuits are not disconnected without adequate discharging path being provided.

5.2 Testing

5.2.1 Control gear and resistors are to be tested by the manufacturers with a high voltage applied between the earthed frame and all live parts and a certificate furnished by them to this effect, For operating voltages above 55 V. the test voltage is to be 1000 V plus twice the rated voltage with a minimum of 2000 V. The voltage is to be alternating at any frequency between 25 and 100 Hz and is to be maintained for one minute without failure.

5.2.2 Control gear and resistors operating at 55 V or below are to be tested to 500 V for one minute.

5.2.3 Immediately after the high voltage test, the insulation resistance between (a) all current-carrying parts connected together and earth, and (b) between current-carrying parts of opposite polarity or phase, is not to be less than 1 megaohm when tested with a direct current voltage of at least 500 V.

5.2.4 Instruments and ancillary apparatus may be disconnected during the high voltage test

5.2 5 Functional Test: The correct functions of the installation components in line with the connections intended to be made, have to be checked as far as possible.

Section 6
Rotation Machines Construction and Testing

6.1 General

6.1.1 Rotating machines are to be constructed in accordance with an acceptable national or international Standard, due regard being given to the ambient conditions stated in 1.5.

6.2 Rating

6.2.1 Vessel's service generators including their exciters, and continuously rated motors are to be suitable for continuous duty at their full rated output at maximum cooling air or water temperature for an unlimited period, without the limits of temperature rise in 6.3 being exceeded. Other generators and motors are to be rated in accodance with the duty which they are to perform, and when tested under rated load conditions the temperature rise is not to exceed the values in 6.3 Alternately limits of temperature rise in accordance with an acceptable National or International Standard may be applied.

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6.3 Temperature rise

6.3.1 The limits of lemperalure rise specified in Table 6.3.1 . are based on a cooling ait temperature of 45°C and a cooling water temperature of 30°C.

6.3.2. If the temperature of the cooling medium is known to exceed the value given in 6.3.1. Ihe permissible temperature rise is to be reduced by an amount equal to the excess temperature of the cooling medium.

6.3.3 H the temperature of the cooling medium is Known to be permanently less than Ihe value given in 6.3.1. the permissible lemperalure rise may be increased by an amount equal to the difference between the declared temperature and that given in 6.3.1 uptoa maximum of 15°C.

Table 6.3.1 : Limits of temperature rise in °C

Item	Part of machines	Methods of measurement of temperature	Temperature rise in air – cooled machines :C insulation Class		
			A	E	B
1(a)	a.c. windings	R	50	65	70
(b)	Field windings of a.c. and d.c. machines having d.c. expiation other than those in items 2 and 3	T	40	55	60
(c)	Windings of armatures having commutators	R	50	65	70
		T	40	65	70
2	Field windings of turbine-type machiones having d.c. excitation	R	-	-	80
3(a)	Low-resistance field windings of more than one layer and compensating windings	T.R	50	65	70
4	Permanently short circuited windings uninsulated	T	50	65	70
5.	Permanently short circuited windings uninsulated	T	The temperature rise of these parts shall in no case reach such a value that there is a risk of injury to any insulating or other material on adjacent parts.		
6	Iron . core and other parts not in contact with windings	-	The temperature rise of these parts shall in no case reach such a value that there is a risk of injury to any insulating or other material on adjacent parts.		
7.	Iron core and toher parts in contact with windings	T	50	65	70
8.	Commulators and slip rings open or enclosed	T	50	60	70

Notes :

1. T = Thermometer method
 R = Resistance method
2. When class R or Class H insulation is employed the permitted temperature rises are respectively 20°C and 40°C higher than the values given for Class B insulation.
3. Classes of insulation are to be in accordance with (EC Publication 85 (1957) Recommendations for the Classification or Material for the Insulation of Electrical Machinery and Apparatus in relation to their Thermal Stability in Service.

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6.4 Direct current service generators

6.4.1 Shunt wound direct current generators are to be provided with automatic voltage regulators,

6.4.2 Direct current generators used for charging batteries without series-regulating resistors are to be either

a) Shunt wound, or

b) Compound wound with switches arranged so that the series winding can be switched out of service.

6.4.3 If terminal voltage is required to be manually adjusted to ensure satisfactory operation ol generators, then, facilities are to be provided at the switchboard or at an appropriate and convenient control position to enable such adjustments to be made.

6.4.4 For each direcl current generator, whilst being driven by ils prime mover, at any lemperalute within the v/oiking range, the means provided is to be capable of adjusting the voltage at any load between no load and full load to within.

a) 1.0 per cent of rated voltage for generators of rating less than 100 [kW].

b) 0.5 per cent of rated voltage for generators of rating exceeding 100 [kW).

6.4.5 The inherent regulation of service generators is to be such that the following condilions are fulfilled.

a) For shunt or stabilized shunt wound generators when the voltage has been set at full load, the steady voltage at no load is not lo exceed 115 per cent of the full load value, and the voltage obtained at any intermediate value of toad is not to exceed the no-load value.

b) For compound wound generators with the generator at full toad operating temperature and starting al 20 per cent load with voltage within 1 per cent of rated voltage, then at full load the vollage is to be within 2.5 per cent of rated voltaged. The average of the ascending and descending load / voltage curves between 20 percent load and full load is not to vary more than 4 percent from rated voltage.

6.4.6 Generators are to be capable of delivering continuously the full load current and normal raled vollage at the terminals when running at full load engine speed at all ambient temperatures up to the specified maximum.

6.4.7 Generators required to run in parallel are to be stable from no load up to the total combined load of the group, and load sharing is to be satisfactory,

6.4.8 The series winding of each two-wire generator is to be connected to the negative terminal.

6.4.9 Equalizer connections are to have a cross-sectional area appropriate to the system but in no case less than 50 per cent'of that of the negalrve connection from the generator to the switchboard.

6.5 Alternating current service generators

6.5.1 Each alternating current service generator unless of the self regulating type, is to be provided with automatic means of voltage regulation.

6.5.2 The vollage regulation of any alternating current generator with its tegulaling equipment is to be such that at all loads from zero to full load the voltage at raled power factor is maintained under steady conditions within 2.5 per cent of fated voltage.

6.5.3 Alternating current generators required to run in parallel are to be stable lrom 20 per cent full load [kW] upto lhe total combined full load [kW] of the group, and load sharing is to be such that lhe load on any generator does not normally differ from 'ls proportionate share of lhe total load by more lhan 15 per cent of the rated output [kWJ of the largest machine or 25 per cent of the rated output [kW] of the individual machine, whichever is less.

6.5.4 When generators are operated in parallel, the KVA loads of the individual generating sets are not to differ from their proportionate share of the total KVA load by more than 5 per cent of the rated KVA output of the largest machine when operating at 0.8 power factor.

6.6 Inspection and testing

6.6.1. On machines for assential services tests are to be carried out in accordance with the relevant standard and a certificate furnished by the manufacturers.

6.6.2 Generators and motors of 100 [kW] or over intended for essential services are to be inspected by the Surveyors during manufacture and testing.

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Section 7
Transofmer – construction and testing

7.1 General

7.1.1 Transformers are to be in accordance with an acceptable National or International Standard, due regard being given to the ambient conditions staled in 1.5.

7.1.2 Transformers are to be of the dry, natural air cooled type. Proposals for the use of liquid cooled transformers will be subject to special consideration.

7.2 Installation

7.2.1 Transformers are to be placed in easily accessible well ventilated spaces free from any gaseous or acid fumes. They are to be clear of nonprotected ignitable materials, and so arranged as to be protected against shocks and any damage resulling from water, oil, liquid fuel, steam etc

7.3. Construction

7.3.1 Transformers are to be double wound except those for motor starling.

7.3.2. Each transformer is to be provided within a nameplate of corrosion-resistant metal giving information on make, type serial number, insulation class and any other technical data necessary lor the application of the Iransformer.

7.4 Regulation

7.4.1 The inherent legulaiion al 0.8 power factor is not to exceed 5 per cent.

7.4.2 Regulation of the complete system is to comply with 3.4.2.

7.5 Short circuit

7.5.1 All transformers are to be constructed to withstand, without damage, the thermal and mechanical effects of a short-circuit at the terminals of any winding for 2 seconds with rated primary voltage and frequency without damage.

7.6 Tests

7.6.1 Transformers lor essential services are to be tested by the manufacturer in accordance wilh the relevant standatd and lest certificates supplied.

Section 8
Miscellaneous Equipment

8.1 Accumulator batteries

8.1.1 Construction

8.1.1.1 The cells ol all batteries are to be so constructed and secured asto prevent spilling of the electrolyte due to the molion of the vessel and to prevent emission of acid or alkaline spray.

8 1.1 2 All batteries are to be provided with labels ol flange 'eiardani material grvmg information on the application for which the bolScry is inieriued. voltage and capacity.

8.1.2 Location

8.1.2.1 Alkaline batteries and lead acid batteries of Ihe vented type are nol to be installed in Ihe same compartment.

8.1.2.2 Large batteries are to be installed in a space assigned to them only. A box on deck would meet this requirement if adequately ventilated and provided wilh means to preveni ingiess of water.

8.1.2.3 Engine starting batteries are to be located as close as practicable to the engine (s) served. If such batteries cannot be accommodated in the battery compartment, they are to be installed so that adequate ventilation is ensured.

8.1.3 Installation

8.1.3.1 Batteries should be so arranged that each cell or crate of cells is accessible from the top and at leasl one side.

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8.1.3.2 Cells or crates are to be carried on non-absorbenl insulating supports. Similar insulators are tobe fitted to prevent any movement of cells arising from the motion of the vessel. Adequate space for circulation of air is to be ensured.

8.1.3.3 Where acid is used as the electrolyte a tray of acid resisting material is to be provided below the cells unless the deck below is similarly protecled.

8.1.3.4 The interiois of all compartments including the shelves, are to be painted with corrosion resistant paint.

8.1.3.5 A permanent notice is to be fitted to all compartments prohibiting naked lights and smoking in lhe compartment.

8.1.3.6 Switches, fuses and other electrical equipment liable to cause an ate are not to be titled in battery compartments.

8.1.4 Ventilation

8.1.4.1 Battery compartments, lockers and boxes are to be adequately ventilated by an independent ventilating system to avoid accumulation of flammable gases. Particular attention should be given to the tact that these gases are lighter than air and lend to accumulate at the top of the spaces.

8.1.4.2 Natural ventilation may be employed if duels can be run directly from the top of the compartment to the open air with no part of the duct more than 45 degrees from the vertical. If naiural venlilalion is impracticable, mechanical ventilation is of be installed, Interior surfaces of duels and fans are to be painted with corrosion-resistant paint, Fan motors are not to be located in the air stream.

8.1.4.3 Necessary precautions are to be taken to prevent sparking due to possible contact by the ventilation fan blades with fixed parts.

8.1.4.4 All openings through the battery compartment bulkheads or decks, other than ventilation openings, are to be effectively sealed to reduce the possibility of escape of gas from the battery compartment into the vessel.

8.2 Luminaries 8.2.1 General

8.2.1.1 Lighting fittings installed in engine rooms or similar spaces where they are exposed to the risk of mechanical damage are to be provided with suitable grilled mechanical guards to protect their lamps and glass globes against such damage.

8.2.1.2 Precautions ate to be taken so that a lamp for one voltage cannot be inserted in a lampholdei foi another voliage.

8.2.1.3 Incandescent lamps are accordance with the following :-

B22 upto 250 V and 200 W
E27 upto 250 V and 200 W
E40 upto 210 V and 3000 W

8.2.1.4 Lampholders are to be constructed of flame-retarding and non- hygroscopic material. All metal parts are to be of robust construction. Goliath lampholders (E40) are to be provided with means for locking the lamp in the holder. The temperature of cable connections is not to exceed lhe maximum conductor temperature permitted for the cable as given in Table 3.2.1.

8.2.1.5. The ratings of lubulai lluoresceni lamps are not to exceed 250 V and SO W.

8.3 Accessories - Construction and testing

0.3.1 Enclosures

8.3.1.1 Enclosures are to be of metal or of flame-relardanl insulating materials.

8.3.2 Inspection and draw boxes

8.3.2.1 If metal conduit systems are used, inspection and draw boxes are to be of metal and are to be in rigid elecirical and mechanical connection with the conduits.

8.3.3 Socket outlets and plugs

8.3.3.1 Socket outlets and plugs are to be so constructed that they cannot be readily short-circuited whether the plug is in or out. and so that a pin of the plug cannot be made to earth either pole of the socket outlet.

8.3.3.2 All socket outlets of current rating 16 amperes or more are to be provided with switch.

8.3.3.3. Where it is necessary to earth the non current-carrying parts of portable or transportable equipment, an effective means of earthing is to be provided at the socket outlet.

8.3.3.4 In all wet situations socket outlets and plugs are to be effectively shielded against rain

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and spray and are to be provided wilh means for mainlaining Ihis quality after removal of the plug.

8.4 Heating and cooking equipment

8.4.1 General

8.4.1.1 Heaters are to be so constructed. Installed and protected Ihat clothing, bedding and other inflammable material cannot come in contact wilh them in such a manner as to cause risk of fire. There is to be no excessive healing of adjacent bulkheads or decks.

8.5 Lightning conductors

8.5.1 Lightning conductors are to be fitted to each mast of all wood, composite and steel vessels having wooden masls or topmasts. They need nol be Tilted to steel vessels having steel masts, unless the masl is partly or completely insulated from the vessel's hull.

8.5.2. Lightning conductors are to be run as straight as possible, and sharp bends in the conductors are to be avoided. All clamps used are to be of brass or copper, preferably of the serrated contact type, and efficiently locked. Soldered connections are not acceptable.

8.5.3 The resistance of the lightning conductors, measured between the mast head and the position on the earth plate or hull to which the lightning conductor is earthed, is not to exceed 0.02 ohms.

8.5.4 The lightning conductors are to be composed of continuous copper tape and / or rope, having a section nol less Ihan 100 [mm] and are to be riveted wilh copper rivets or fastened with copper clamps to an appropriate copper spike of not less than 13 [mm] in diameter and projecting at last 150 [mm] above the top of the mast. The lower end of the lighlning conductor is to be securely clamped to a copper plale having an area of at least 0.2 [m^3], fixed to the vessel's hull well below the light load waterline in such a manner that it is immersed under all conditions of heel. In steel vessels fitted with wooden masts, the lower end of the lighlning conductor is to be securely clamped to the nearest metal forming part of Hie hull.

Section 9
Trials

9.1 General

9.1.1 Before a new installation, or any alteration or addition to an existing installation, is put into service the lests and trials specified in this Section are to be carried out. These tests and trials are intended to demonstrate the general condition of the installation at the time of complelion. They are in addilion to any acceptance tests which may have been carried out at the manufacturer's works.

9.2 Insulation resistance measurement

9.2.1 Insulation resistance is to be measured using a self-contained instrument such as a direct reading ohm-meter of the generator type applying a voltage of at least 500 V. Where a circural separates capacitors of move than 2.5 Total capacitance a consultant violage type readings.

9.2.2 Power and light circuits : The insulation resistance between all insulated poles and earth and, where practicable, between poles, is to be at least 1 megaohm. The installation may be subdivided and appliances maybe disconneded It initial tests produce results less than this figure.

9.2.3 Low voliage circuits : Circuits operating at less than 55 V are to have an insulation resistance of at least 0.33 megaohm.

9.2.4 Switchboards, Section boards and distribution boards : The insulation resistance is to be at teast 1 megaohm when measured between each busbar and earth and between busbars. This test may be made wilh all circuit-breakers and switches open, all fuse links for pilot lamps, earth fault-indicating lamps. voltmeters, etc., removed and voltage coils temporarily disconnected, where otherwise damage may result.

9.2.5 Generators and motors the insulation resistance of generators and motors in normal working condition and with all parts in place, is to be measured and recorded. The test should be carried out with the machine hot if possible. The insulation resistance of generator and motor cables, field windings and control gear is to be at least 1 megaohm.

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9.3 Earth continuity

9.3.1 Tests are to be made to verify that all earth continuity conductors are effective and that the bonding and earthing of melallic conduit and/or sheathing of cables is effective.

9.4 Performance

9.4.1 It is to be established (hat the provisions of Ihe Rules have been complied with respect to the criteria mentioned in Itiis sub-section.

9.4.2. Temperatures of joints, connections, circuit-breakers and fuses.

9.4.3. The operalion of engine governors, synchronising devices, overspeed trips, reverse-current, reverse-power, over-current and under-voltage trips and other safely devices.

9.4.4. Satisfactory commulation excitation and performance of each generator throughout a run at full rated load.

9.4.5 Voltage regulation of every generator when full raled load is suddenly Ihrown off.

9.4.6 For alternating current and direct current generators, salisfactory parallel operation and [k/W] load sharing of all generators capable of being operated in parallel at all loads up to normal working load. For alternating current generators satisfactory parallel operation and KVA load sharing of all generalors capable of being operated in parallel at all loads up to normal working load.

9.4.7 All essential motors and other important equipment are to be operated under service conditions, though not necessarily at full load of simultaneously, tor a sufficient length of time to demonstrate that they are satisfactory.

9.5 Voltage drop

9.5.1 Vollage drop is to be measured, where necessary, to verify lhal Ihis is not excessive

End of Chapter

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Annexture – VI
(See rule – 47)

LIFE SAVING APPLIANCE TO BE CARRIED ON BOARD INLAND VESSELS

Regulation 1

1. Unless expressly provided other wise the rules will apply to all decked vessels of over 15 m in length and to passenger vessels carrying more than 25 passengers, irrespective of length.

2. Life saving appliances and arrangements required by these rules are to be duly approved to meet the requirements specified in International life saving appliance code, as far as practicable.

3. For the purpose of these rules, the inland vessels are classified as follows :

Class I	:	Passenger vessels between 15 m and 25 m in length.
Class II	:	Passenger Vessel over 25 m in length and under 45 m. in length.
Class III	:	Passenger Vessel over 45m in length.
Class IV	:	Cargo Vessels, manned barges or potoons.

Regulation 2
General Requirements

1. **Passenger Vessels :**

Class	Length	Rescue Boat	Life Rafts	Buoyant Apparatus	Life Buoys
I	15 – 25 m	-	60%	40% Capacity	4
II	25 – 45 m	One	60%	40 % Capacity	6
III	> 45 m.	One	100%	-	8

2. **Cargo vessels, manned barges or pontoons :**

Class	Length	Rescus Boat	Life Rafts / Buoyant Apparatus	Life Buoys
IV	15 – 25 m	-	100%	2
IV	25 – 45 m	-	100%	4
IV	> 45 m.	-	100%	6

Note : For the purpose of these Rules, one life buoys can be assumed as providing buoyancy for 2 persons.

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Regulation 3
Manning and survival procedures

1. All persons manning inland vessels and barges should be trained in launching and operating the survival crafts.
2. Illustrations and instructions relating to the use of life-saving appliances in appropriate languages should be displayed at appropriate places.
3. Posters or signs should be provided on or in the vicinity of survival craft and their launching controls.
4. On-board training in the use of life-saving appliances, including survival craft equipment, should be provided to all crew members.

Regulation 4
Stowage, launching and recovery of survival crafts

1. Survival craft should be stowed:

 1.1 so that neither the survival craft nor its stowage arrangements will interfere with the operation of any other survival craft or rescue boat;

 1.2 as near the water surface as is safe and practicable but not less than 2 m above the waterline with the ship in the fully loaded condition under unfavourable condition of trim and list;

 1.3 in a state of continuous readiness so that two crew members can carry out preparations for embarkation and launching in less than 5 minutes;

 1.4 liferafts intended for throw-overboard launching should be so stowed as to be readily transferable for launching on either side of the vessel.

2. Where the liferafts are not provided with launching appliances they should be stowed with its painter permanently attached to the vessel with a float- free arrangement complying with the recognized standards.

3. Effective means shall be provided for lighting the life saving appliances and their launching devices.

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Regulation – 5

Marking of survival craft

All survival craft should be marked in block capitals of the Roman alphabet with the:

1. Name and place of registry of the vessel;
2. Name of approving authority; and
3. Number of persons it is permitted to accommodate.

Regulation 6

Operational readiness, maintenance and inspections

1. Operational readiness at all times all life-saving appliances should be in working order and ready for immediate use.

2. Maintenance Instructions for on-board maintenance of life-saving appliances should be easily understood and illustrated where possible.

3. Inspection
The following tests and inspeaions should be carried out regularly and a log is to be maintained:
 - All survival craft/ liferaft, rescue boats and launching appliances should be visually inspected to ensure that they are ready for use;
 - the general emergency alarm system should be tested

4. Servicing of inflatable liferafts, inflated rescue boats and hydrostatic release units:

Every inflatable liferaft and inflated rescue boats should be serviced at regular intervals at an approved servicing station.

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ANNEXTURE - VII
(see rules 43 and 46)

Rules for Vessels carrying dangerous goods

(inclusive of Materials Hazardous when carried in Bulk)

1.0 General .

1.1. These Rules have been prepared to ensure safety of the environment in which vessels carrying cargoes in bulk are engaged. The rules are in line with BC Code as can be applicable to inland water.

1.2 The primary aim of the rule is to
- Highlight the dangers associated in carrying cargoes in bulk
- Highlight the dangers associated with carriage of dangerous cargoes.
- Give guidance during shipment of these cargoes.

1.3 Hazards : -
The various hazards associated with shipment of these materials is.
- Structural damage due to improper distribution of cargo
- Reduction instability
- Shift in Cargo
- Liquification cargo under stimulus of vibration motions of vessels.
- Chemical reactfons.

2.0 Application for Permission

2.1 An application is to be forwarded to the administration for permission of carriage of a particular cargo together with complete details. [UN No. Shipping name, nature of risks envisaged etc.O).

3.0 Definitions

Angle of repose	Is the maximum slope angle of non-cohesive (i.e. free-flowing) granular material. It is the angle between a horizontal plane and the cone slope of such material.
Cargoes which may liquefy	Are materials which contain at least some fine particulars and some moisture, usually water, although they need not be visibly wet in appearance. They may liquefy if shipped with moisture content in excess of the transportable moisture limit.
Concentrates	Are materials obtained form a natural ore by a process of purification by physical of chemical separation and removal of unwanted constituents.

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Cargo space	Any space in the vessel appropriated for the carriage of cargo.
Flow moisture point	is the percentage moisture content (wet mass basis) at which a flow state develops under the prescribed method of test in a representative sample of the material,
Flow state	is a slate that occurs when a mass of granular material is saturated with liquid to an extent that under the influence of prevailing external forces such as vibration, impactfon or vessel's motion, it loses its internal shear strength and behaves as a liquid.
Incomepatible materials	are those materials that may react dangerously when mixed. They are subject to the segregation requirements and the individual entries in Enclosure 2.
Moisture content	is that portion of a representative sample consisting of water, ice or other liquid expressed as a percentage of the total wet mass of that sample
Moisture migration	is the movement of moisture contained in materials by settling and consolidation of the material due to vibration and vessel's motion. Water is progressively displaced which may result in some portions or all of the materials developing a flow rate.
Representative test sample	is a sample of sufficient quantity for the purpose of testing physical and chemical properties of the consignment to meet specified requirements. It should be collected by means of an appropriate systematic
Shipper	for the purposes of this Code the term shipper means any person by whom or in whose name or on whose behalf a contract of carriage of goods by inland waterway has been concluded with a carrier, or any person by whom or in whose name or on whose behalf the goods are actually delivered to the carrier in relation to the contract of carriage by inland waterway.
Solid bulk cargo	is any material, other than liquid or gas, consisting of a combination of particles, granules or any larger pieces of material, generally uniform in composition, which is loaded directly into the cargo spaces of a vessel without any intermediate form of containment.
Stowage factor	is the figure which expresses the number of cubic metres which one tonne of material will occupy.
Transportable moisture limit	of a cargo which may liquefy, represents the maximum moisture content of the material wnich is considered safe for carriage in vessels.

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Timming	for the purposes of this Code trimming means any leveling of the material within a cargo space, either partial or total, by means of loading spouts or chutes, portable machinery, equipment or manual labour.
IMDG Code	International Maritime Dangerous goods Code.
BC Code	means International "Code of Safe practice for solid bulk cargoes-
MFAG	means Medical First Aid Guide for use in accidents involving dangerous goods.
EMS	Group emergency Schedule is a part of Emergency Procedures for vessels carrying Dangerous goods.

4.0 Safety of Personnel, Vessels and Environment: -

4.1 Prior to loading and unloading the master must be aware of: -

a) Risk involved due to shifting of cargoes, chemical hazards etc.
b) National Regulations
c) Facilities at loading unloading port.
d) First aid guidelines [MFAG]
e) Ventilation requirements for cargo spaces. When cargo carried causes depletion of oxygen, or emit toxic gases etc.
f) Test certificate stating the relevant details of angle of repose, stowage factor, toxicity, etc.

4.2 Documents to be carried onboard :

The following documents (as applicable) duly approved by the administration are to be placed on board at suitable location and should be available for ready reference in case of an emergency.

- Medical Fist Aid (MFAG)
- Group emergency procedures (EmS)
- Trim & Stability Booklet
- Grain Stability Booklet
- Loading manual.
- Cargo securing manual
- Test certificate stating the relevant details of angle of repose, stowage factor, toxicity, etc.
- Logbook is to be maintained indicating the various precautions taken before and during loading and during and unloading after of the cargoes.

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- Stowage plan identifying the various classes and showing the location dangerous goods is to be provided. In case of carriage of limited quantity cargoes, the same is to be suitably indicated on the plan.

5.0 Classification of Solid Bulk Materials possessing Safety hazards : -

5.1.1 Solid materials transmitted in bulk which present a hazard during transport because of their chemical nature of properties is listed in Enclosure 2. Some of these materials are classified as Dangerous goods in International Maritime Dangerous Goods Code, others are materials which are hazardous when carried in Bulk [MHB].

5.1.2 When materials not listed are carried which fall within the classification of these Rules, the vessel concerned should carry Certificate of approval.

5.1.3 The list of materials which may liquefy when they come in contact with moisture and may cause a reduction in the stability due to free surface effect is enclosed as Enclosure 1.

5.1.4 The list of materials which are neither liable to liquefy (Enclosure - 1) nor possess chemical hazards (Enclosure 2) is enclosed as Enclosure 3. 5.2 Classes of hazard

5.2. Classes of hazard

5.2.1 The classification of materials possessing chemical hazards and intended to be shipped in bulk under the requirements of this Code should be in accordance with 5.2.2 and 5.2.3.

5.2.2 **Classification**

For the purpose of this Rules it has been found more convenient to designate these classes in accordance with the IMDG Code and to define in greater detail the materials which would fall within each class. Additionally, "materials hazardous only in bulk (MHB) are defined in this section.

5.2.2.1 **Class 4.1: Flammable solids**

These materials possess the properties of being easily ignited by external sources such as sparks and flames and of being readily combustible or of being liable to cause or contribute to fire through friction.

5.2.2.2 **Class 4.2: Substances liable to spontaneous combustion**
These materials possess the common property of being liable to heat spontaneously and to ignite.

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5.2.2.3 Class 4.3: Substances which, in contact with water, emit flammable gases.
These materials possess the common property, when in contact with water, of evolving flammable gases. In some cases these gases are liable to spontaneous ignition.

5.2.2.4 Class 5.1: Oxidizing substances (agents)
These materials although in themselves not necessarily combustible may, either by yielding oxygen or by similar processes, increase the risk and intensity of fire in other materials with which they come into contact.

5.2.2.5 Class 6.1: Toxic substances
These materials are liable either to cause death or serious injury or to harm human health if swallowed or inhaled, or by skin contact.

5.2.2.6 Class 6.2: Infectious substances
These materials contain viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.

5.2.2.7 Class 7: Radioactive materials
To be specially considered.

5.2.2.8 Class 8: Corrosives
These materials possess in their original state the common property of being able more or less severely to damage living tissue.

5.2.2.9 Class 9: Miscellaneous dangerous substances and articles These materials present a hazard not covered by other classes.

5.2.3 Materials hazardous only in bulk (MHB)
These materials, when carried in bulk, present sufficient hazards to require specific precautions. For example, materials which are liable to reduce the oxygen content in a cargo space and those materials liable to self-heating or which become hazardous when wet, are regarded as belonging to this group.

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6.0 Stowage and segregation requirements

6.1 General requirements

6.1.1 The potential hazards of the materials listed in Enclosure 1 and falling within the classification of 5.2.2 and 5.2.3 entail the need for segregation of incompatible materials.

6.1.1.2 2 In addition to general segregation as between whole classes of materials, there may be a need to segregate a particular material from others which would contribute to its hazard. In the case of segregation from combustible materials, this should be understood not to include packaging material, ceiling or dunnage; the latter should in these circumstances be kept to a minimum.

6.1.3 For the purpose of segregating incompatible materials, the words "hold" and "compartment" are deemed to mean a cargo space enclosed by steel bulkheads or shell plating, and by steel decks. The boundaries of such a space should be resistant to fire and liquid.

6.1.4 When two or more different incompatible (other than Radioactive materials) materials are to be transported in bulk, no general segregation between them is required,

6.1.5 Where different grades of a material are transported in bulk in the same cargo space, the most stringent segregation provisions applicable to any of the different grades should apply to all of them.

6.1.6 When materials in bulk and dangerous goods in packaged form are to be transported, no general segregation between them is required. Except that when MHB and materials belonging to class 6.2, they are to be separated by a complete compartment or hold (i.e. either a vertical or a horizontal separation, if the decks are not resistant to fire and liquid, then only a longitudinal separation by an intervening complete compartment is acceptable)

6.1.7 Incompatible materials should not be handled simultaneously. In particular, contamination of foodstuffs should be avoided.

Upon completion of loading one such material, the hatch covers of every cargo space containing it should be closed and the decks cleaned of residue before loading of other materials is commenced. When discharging, the same procedures should be followed.

6.1.8 To avoid contamination, a material which is indicated as toxic should be stowed "separated from" (i.e., indifferent spaces) all foodstuffs.

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6.1.9 Materials which may evolve toxic gases in sufficient quantities to affect health should not be stowed in those spaces from where such gases may penetrate into living quarters, work areas, or ventilation systems.

6.1.10 Materials which present corrosive hazards of such intensity as to affect either human tissue or the vessel's structure should only be loaded after adequate precautions and protecting measures have been taken.

6.1.11 After discharge of a material for which toxicity is indicated, spaces used for its transport should be inspected for contamination. A space, which has been contaminated, should be properly cleaned and examined before being used for other cargoes, especially foodstuffs.

6.1.12 After discharge of materials, a close inspection should be made for any residue which should be removed before the vessel is presented for other cargo; such an inspection is particularly important when materials having corrosive properties have been transported.

6.2 Special requirements

6.2.1 Materials of classes 4.1,4.2 and 4.3

6.2.1.1 Materials of these classes should be kept as cool and dry as reasonably practicable and should be stowed clear of all sources of heat or ignition.

6.2.1.2 Electrical fittings and cables should be in good condition and properly, safeguarded against short circuits and sparking. Where a bulkhead is required to be suitable for segregation purposes, cable and conduit penetrations of the decks and bulkheads should be sealed against the passage of gas and vapour.

6.2.1.3 Materials liable to give off vapours or gases which can form an explosive mixture with air should be stowed in a mechanically ventilated space.

6.2.1.4 Prohibition of smoking in dangerous areas should be enforced, and clearly legible "NO SMOKING" signs should be displayed.

6.2.2 Materials of class 5.1

6.2.2.1. Materials of this class should be kept as cool and dry as reasonably practicable and should be stowed clear of all sources of heat or ignition. They should also be stowed "separated from" other combustible materials.

6.2.2.2 Before loading materials of this class, particular attention should be paid to the cleaning of the cargo spaces into which they will be loaded. As far as reasonably practicable, non-combustible securing and protecting materials and only a minimum of dry wooden dunnage should be used.

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6.2.2.3 Precautions should be taken to avoid the penetration of oxidizing materials into other cargo spaces, bilges, etc.

6.2.3 Materials of class 7

To be specially considered.

6.2.4 Materials of class 8 or materials having similar properties

6.2.4.1 These materials should be kept as dry as reasonably practicable.

6.2.4.2 Before loading these materials, attention should be paid to the cleaning of the cargo spaces into which they will be loaded and in particular whether these spaces are dry.

6.2.4.3 Penetration of these materials into other cargo spaces, bilges, wells and between the ceiling boards should be prevented.

6.2.4.4 Particular attention should be paid to the cleaning of the cargo spaces after unloading, as residues of these cargoes may be highly corrosive to the vessel's structure. Hosing down of the cargo spaces followed by careful drying is preferred.

6.3.3 Segregation between bulk materials possessing chemical hazards and dangerous goods in packaged form

Segregation between bulk materials and dangerous goods in packaged form should be in accordance with the individual entries in Enclosure 2.
For packaged dangerous goods the individual schedules of the IMDG Code should be consulted for additional requirements with regard to stowage and segregation.

6.3.4 Segregation between incompatible bulk materials possessing chemical hazards

Unless otherwise required in this section or in the individual entries in Enclosure 1, segregation between incompatible bulk materials possessing chemical hazards should be specially considered.

7.0 Limited quantities for carriage of dangerous goods.

7.1 General

The provisions of this chapter concern the transport of dangerous goods of certain classes packed in limited quantities. The applicable inner packaging quantity limit is specified for each substance in column 6 of the Dangerous Goods List in Enclosure 2. In addition, the word "None" has been indicated in column 6 of the Dangerous

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Good List in Enclosure 2 for each entry not permitted to be transported in accordance with this chapter.

7.2 Packing

a) Dangerous goods transported according to these special provisions should be packaged only in inner packaging placed in suitable packaging. The packaging should meet the provisions of IMDG Code, Chapter 4, Clauses 4.1.1.1, 4.1.1.2 and 4.1.14 to 4.1.1.8 and be so designed that they meet the construction provisions of Chap 6, clause 6.1.4 of IMDG Code. The total gross mass of a package should not exceed 20 kg.

b) Shrink- or stretch-wrapped trays meeting the conditions of Chap. 4, clauses 4.1.1.1, 4.1.1.2 to 4.1.1.8 of IMDG Code are acceptable as outer packaging for articles or inner packaging that are liable to break'or be easily punctured, such as those made of glass, procelain, stoneware or certain plastics, materials, etc. should not be transported in such packaging. The total gross mass of a package should not exceed 20 Kg.

7.3 Stowage

Notwithstanding the stowage provisions indicated in the dangerous Goods List, dangerous goods transported under the provisions of this chapter are allocated stowage category A.

7.4 Segregation

a) Different dangerous goods in limited quantities may be packaged in the same outer packaging, provided the segregation provision of chapter 7.2 are in to account and the goods will not interact dangerously in the event of leakage.

b) The segregation provision of chapter 7.2 are not applicable for packagings containing dangerous goods in limited quantities or in relation to other dangerous goods.

7.5 Marking and labeling

a) Package of dangerous goods transported in accordance with the special provisions of this chapter.

1. need not be labeled nor bear the marine pollutant mark,

2. should unless otherwise provided, be marked with either:

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1. the Proper Shipping Name together with the UN Number or

2. the words "dangerous goods in limited quantities of class/classes.....", which should be regarded as the proper Shipping Name, in which case no UN Number need to be marked on the packaging.

b) Cargo transport units containing dangerous goods in only limited quantities need not be placarded. They should, however, be suitably marked on the exterior as "LIMITED QUANTITIES".

7.6 Documentation

a) In addition to the provisions for documentation specified in chapter 4.2, the words "limited quantity" should be included on the dangerous goods declaration together with the description of the shipment, except if the description "dangerous goods in limited quantities of class/classes..." is used.

b) The description "dangerous goods in limited quantities of class/classes...." may be used on the transport document, instead of the Proper Shipping Name from the Dangerous Goods List. The UN Number and packing group of all substances involved has to be included, together with the other information required in 4.2.

c) For aerosols not exceeding 1000 cm^3 (UN 1950), ho sub-division is assigned and the class to be shown on the dangerous goods transpprt document is "2".

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Annexure VII

Enclosure I

List of bulk materials which may liquefy

A.1. General

A.1.1. This Enclosure lists materials which may liquefy if shipped at a moisture content in excess of their transportable moisture limit.

A.1.2. It should be carefully noted that this list of materials is not exhaustive and that there are no physical or chemical properties attributed to them. Consequently, whenever the shipment of a bulk cargo is contemplated, it is essential to obtain currently valid information about its physical properties prior to loading.

A.2 Mineral concentrates

A.2.1. Varying terminology exists to described mineral concentrates. All known terms are listed below but the list is not exhaustive.

A.2.2. The stowage factor of these materials is generally low: from 0.33 m^3/t to 0.57 m^3/t.

BLENDE (Zinc sulphide)
CHALCOPYRITE
COPPER NICKEL
COPPER ORE CONCENTRATE
COPPER PRECIPITATES
GALENA (Lead sulphide)
ILMENITE "dry" and "mois")
IRON ORE CONCENTRATE
IRON ORE (magnetite)
IRON ORE (Pellet feed)
IRON ORE (sinter feed)
IRON PYRITES
LEAD AND ZINC CALCINES (mixed)
LEAD AND ZINC MIDDLINGS
LEAD ORE CONCENTRATE
LEAD ORE RESIDUE
LEAD SILVER ORE
LEAD SULPHIDE
ZINC AND LEAD MIDDLINGS
ZINC ORE CONCENTRATE
ZINC ORE (burnt ore)
ZINC ORE (crude)
LEAD SULPHIDE (galena)
MAGNTITE
MAGNETITE-TACONITE
MANGANIC CONCENTRATE (manganese)
NEFELINE SYENITE (Mineral)
NICKLE ORE CONCENTRATE
PENTAHYDRATE CRUDE
PYRITE
PYRITES (CUPREOUS)
PYRITES (fine)
PYRITES (flotation)
PYRITES (Sulphur)
PYRITIC ASHES (iron)
PYRITIC CINDERS
SILVER LEAD ORE CONCENTRATE
SLIG (iron ore)
ZINC AND LEAD CALCINES
ZINC SINTER
ZINC SLUDGE
ZINC SULPHIDE
ZINC SULPHIDE (blende)

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A.2.3. When loading the above materials, reference should also be made to the entry 'METAL SULPHIDE CONCENTRATES' in Enclosure 2.

A.3 Other materials

A.3.1. Many fine-particle materials, if possessing a sufficiently high moisture content, are liable to flow. Thus any damp or wet cargo containing a proportion of fine particles should be tested for flow characteristics prior to loading.

A.3.2. Fish in bulk can act as a cargo which may liquefy and when proposed for carriage in bulk in a cargo vessel, the competent authority should be consulted. The Code of Safety for Fishermen, Part B, provides useful information on this subject.

A.3.3. The list below contains materials (other than the mineral concentrates listed in paragraph A.2.2) that have been reported as capable of attaining a flow state and is not exhaustive.

Material	Approximate Stowage factor (m^3 / t)
CALCINED PYRITES (SEE ALSO Enclosure 2).	0.43
COAL (fine-particle) (see also Enclosure 2)	
COAL SLURRY (watery silt, material normally under 1mm in size)	0.98 to 1.15
COKE BREEZE (See also Enclosure 3)	1.8
FISH	

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Enclosure - 2

DANGEROUS GOODS LIST
(Table arranged in alphabetical order of the shipping names)
(INCLUSIVE OF list of MHB)

1. The table is divided in to 10 columns as follows :

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1395	Aluminium Ferrosilicon powder (including briquettes)	4.3	I	-	None	235	No 1	Category D	Finely divided alkali or alkaline earth metal, e.g. metallic sodium suspended in a flammable liquid such as toluene, xylene, naptha, kerosene, etc Reacts violently within moisture, water or acids, evolving hydrogen, which may be ignited by the heat of the reaction.
1438	Aliminium Nitrate	5.1	III	-	1 Kg	601, 605	No 1	Category A	Colourless or white crystals, Deliquescent Soluble in water Slightly corrosive Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.
1398	Aluminium, Silicon Powder, Uncoated	4.3	III	Note 8	1 Kg	601, 605	No 1	Category A, only to be loaded under dry weather conditions. Under deck in a mechanically vanilated space, clear of living quarters	In contact with water, caustic alkalis or acids, generates heat and evolves hydrogen a flammable gas. May also evolve silanes, which are toxic and may ignite spontaneously.
1942	Aluminium Nitrate with not more than 0.2% combustible substances including any organic substance calculated as carbon to the exclusion of any other added substance calculated as carbon to the exclusion of any other added substance	5.1	III	Note 11	1 Kg	610	No 3	Category A, For special stowage provisions, see 7.1.11.5 *Away from sources of heat. Separated from combustible material (particularly liquids) bromates, chlorates, chlorites, hydrochlorities,	Crystals, granules or prills, soluble in water, Supporter or combustion./ a major fire aboard a vessel carrying this substance may involve a risk of explosion in the event of contamination (e.g. by fuel oil) or strong confinement.. An adjacent detonation may also involve the risk or explosion. If heated strongly,

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Un:No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
								nitrites, perchlorates, permanganates and powdered metals	Decomposes, giving off toxic gases which support combustion.
2067	Aluminium Niterate & Fertilizers : Uniforms non segregating mixtures of ammonium nitrate with added matter which is inorganic and chemically inert towards ammonium nitrate with not less than 90% of ammonium nitrate and not more than 0.2% of combustible material (including organic material calculated as carbon) or with more than 70% but less than 90% ammonia nitrate and not more than 70% but less than 90% ammonium nitrate and not more than 0.4% total combustible material.	5.1	III	Note 1	1 Kg	610	No 3	Category A, For special stowage provisions, see 7.1.1.5 "Separated from" combustible material (particularly liquids) bromates, chlorates, chlorites, hydro – chloritis, hydro chlorites, nitrites, perchlorates, permanganates and powdered metals/ "Away from " sources of heat.	Crystals, granules or prills. Wholly or partly soluble in water. Supporters of combustion. A major fire aboard a vessel carrying substance may involve a risk of explosion in the event of contamination (e.g. by fuel oil) or strong confinement. An adjacent detonation may also involve a risk of explosion, if heat strongly, decompose, giving off toxic gases and gases which support combustion.
2068	Ammonium Nitrate Fertlizers : Uniform non – segrageting mixtures of ammonium nitrate with calcium carbonate and/or dolomite with more than 80% but less than 90% ammonium nitrate and not more than 0.4% total combustible material.	5.1	III	Note 1 Note 2	1 Kg	610	No 3	Category A. For special stowage provisions, see 7.1.11.5 "Separated from" combustible material (particularly liquids) bromates, chlorates, chlorites, hydrochlorities, nitrites, perchlortes, permanganates, and powdered metals "Away from " source of heat	Crystals, granules or prills. Wholly or partly soluble in water. Supporters of combustion. A major fire aboard a vessel carrying these substances may involve a risk of explosion, if heat strongly decompose, giving off toxic gases and gases which support combustion.
2069	Ammonium Nitrate Fertilizers : Uniform non segregating mixtures of ammonium nitrate /	5.1	III	Note 1 Note 2	1 Kg	610	No3	Category A, For special stowage provisions, see 7.1.11.5 "Separated from" combustible	Crystals granules or prills. Wholly or partly soluble in water.

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Ammonium sulphate with more than 45% but not more than 70% ammonium nitrate and not more than 0.4% total combustible material							Material (particularly lioquids) bromates, chlorates, chlorites, hydrochlorities, nbitrites, erchlorates, permanganates and powdered metals "Away from" source of heat.	Supporter of combustion. A major fire aboard & vessel carrying these substances may involve a risk of explosion, If heat strongly decompose giving off toxic gases and gases which support combustion.
2070	Ammonium Nitrate Fertilizers: Uniform non-segregating mixtures of nitrogen/phosphate or nitrogen/potash types or complete fertilizers or nitrogen/ phosphate/potash type with more than 70% but less than 90% ammonium nitrate and not more than 0.4% total combustible material.	5.1	III	Note 1	1 Kg	610	No 3	Categtory A. for special stowage provisions see 7.1:11.5 "Separated from" combustible matrial (particularly liquids) bromates, chlorates, chlorities, hydrochlorities, nitrites, perchlorates, permanganates and powdered metals "Away from" source of heat	Crystals granules or prills. Wholly or partly soluble in water. Supporters of combustion. A major fire aboard a vessel carrying these substances may involve a risk of explosion. If heat strongly decompose giving off toxic gases and gases which support combustion.
2071	Uniform non-segregating mixtures of nitrogen/phosphate or nitroten/ potash types of complete fertilizers of nitrogen phosphate/ postash type containing not more than 70% of ammonium nitrate and not more than 0.4% of total added combustible material or containing not more than 45% of ammonium nitrate with unrestricted combustible material.	9	III	Note 1	1 Kg	610	No 3	Category A	
1446	Barium Nitrate	5.1	III	-	500 g	700	No 2	Category A	White crystals, Mixtures with combustible material are readily ignited and many burn fiercely.

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
									Toxic if swallowed by skin contact or by dust inhalation.
BC003	Calcined Pyrites	MHB		-	NA	700	No 2	Separated from Food stuffs	Sold, finely divided and dusty substances, being a residual product from chemical industry where all types of metal sulphides are wither used for the production of sulphuric acid or are processed to recover elemental metals. The residues are highly corrosive to steel. Harmful and irritating by dust inhalation.
1454	Calcium Nitrate	5.1	II	-	500g	235	No 4	Category A	White deliquescent solid, soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.
2969	Castor beans of Castor Meal or Castor Flake	9	II	-	None	None	No 6	Category E Clear of living quarters "Away from" food stuffs class 5.1 "Separated from" class 6.2	Whole beans of meal. The latter is the residue remaining after the oiul has been extracted from the seeds. Castor beans contain a powerful allergen which by Inhalation of dust of by skin contact with crushed bean products, can give rise to severe irritation or the skin, eyes and mucous membranes in some persons. They are also toxic by ingestion. When handling these products wear at least & dust mask and goggles. Avoid unnecessary skin contact.
BC005	Charcoal	MHB			NA	None	None 5	Segregation as required for class 4.1 materials. Separated form oily materials.	May possibly ignite spontaneously. Contact with water may cause self heating. Liable to cause oxygen depletion in the cargo space.
BC010	Coal	MHB			NA	311 616	No 13	Boundaries of cargo spaces should be	May emit methane. A mixture of air/methane forms an explosive

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
								resistant to fire and liquids. Separated from materials of classes 4 and 5.1	Atomosphere which can be ignited by sparks. Coals may oxidize and hence deplete oxygen from the compt.
1363	Copra	4.2	III	Note 4	None	None	No 5	Category A. Keep as dry as reasonable practicable. Protect from sparks and open flame. Provide a good through ventilation for bagged cargo. Double strip stowage recommended. The cargo shoule be stowed "away from" pipes and bulkheads which are liable to become heated (e.g. engine room or heated fuel bulkheads). During the voyage regular temperature readings should be taken at varying depths in the hold and recorded if the temperature of the cargo exceeds the ambient temperature and continues to increase, ventilation should be closed down.	Dried kernels of coconuts with a penetrating rancid doro, which may taint other cargoes.
BC015	Direct, Reduced iron DRI*	MHB			NA	None	No 14	Boundaries of cargo should be resistant to fire and passage of water. Separated from materials of classes 4, 5 and acids of class 8 in packaged form	DRI may react with water and air to produce hydrogen and heat. The heat produced may cause ignition. Oxygen in an enclosed space may be depleted.

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC016	Direct Reduced Iron *	MHB			NA	None	No. 14	Boundaries of cargo spaces should be resistant to fire and passage of water. Separated from materials of classes 4,5 and acdis of class 8 in packaged form.	Material may slowly evolve hydrogen when in contact with water.
BC020	Ferrosphosphorus	MHB			NA	601 605	No 1	Segregation as required for 4.3 materials	May evolve flammable and toxic gases on contact with water.
1408	Ferrosilicon	4.3	III	Note 8	1 Kg	601, 605	No 1	Category A Only to be loaded under dry weather conditions. Keep as dry as reasonably, practicable under deck in a mechanically ventilated cargo space. Clear of living quarters.	In contact with the moisture , water, alkalis or acids, may evolve hydrogen, a flammable gas, which may form explosive mixtures with air and also arsine and phosphine which are highly toxic gases. These gases are evolved in proportions which under mechanically ventilated conditions make the poison hazard by far predominant over the explosion hazard. The rate of gas evolution is greatest from freshly broken surfaces, so is liable to increase whenever the cargo is disturbed, such as during loading, Toxic of swallowed, by skin contact or by vapour inhalation.

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC022	Ferrosilicon	MHB			NA	601, 605	No 1	Category A, only to be loaded under dry weather conditions. Keep as dry as reasonably practicable. Separated form food stuffs	In contact with moisture, water, alkalis or acids, may evolve hydrogen, a flammable gas, which may form explosive mixtures with air, and also arsine and phosphine, which are highly toxic gases. These gases are evolved in proportions which under mechanically ventilated conditions make the poison hazard by far predominant over the explosion hazard. The rate of gas evolution is greatest from freshly broken surfaces, so is liable to increase whenever the cargo is disturbed such as during loading toxic if swallowed by skin contact or by vapour inhalation.
2793	Ferrous Metal, Borings, Shavings Turnings of Cuttings	4.2	III	Note 7	None	None	No 12	Category A, separated form food stuffs	These cargoes are liable to self heating and to ignite spontaneously, particularly when in a finely divided form wet of contaminated with such materials as unsaturated cutting oil, olly rags and other combustible matter. Self heating or inadequate ventilation may cause dangerous depletion of oxygen in the stowage spaces. Excessive amounts of cast iron borings or organic materials may encourage heating. The swarf should be protected from moisture prior to and after loading, If during loading the weather is inciment, hatches should be closed and otherwise protected to keep the material dry.

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2216	Fishmeal, Stabilized, Fishscrap, Stabilised.	9	III	Note 3 Note 4 Note 10	None	None	No 7	Category B "Separated from class 6.2 "Separated by a complete compartment or hold from goods of class 1 except from those in division 1.4. For special stowage provisions.	Brown to greenish-brown product obtained through heating and drying or oily fish. Strong odour which may affect other cargo liable to heat spontaneously unless of low fat content of effective anti oxidant treated.
BC025	Fluorspar	MHB			NA	None	No 2	Separated from food stuffs and all class 8 materials	Harmful and irritating by dust inhalation. Exposure of persons to dust must be minimized.
1376	Iron Oxide, Spent	4.2	III		None	635, 640, 645	No 6	Category E	Obtained from coal gas purification, Strong odour which may taint other cargo, Liable to heat and Ignite spontaneously. May evolve hydrogen sulphide, sulphur dioxide and hydrogen cyanide, which are toxic gases. This substance should have been cooled and weathered for not less than eight weeks before shipment, unless packed in a metal drum.
1469	Lead Nitrate	5.1	II		500g	110	No 4	Category A	White crystals, Soluble in water Mixture with combustible material are readily ignited and may burn fiercely. Toxic if swallowed by skin contact or by dust inhalation.
BC030	Lime (Unslaked)	MHB			NA	705	No 2	Separated from all packaged dangerous goods.	Unslacked lime combines with water to form calcium hydroxide or magnesium hydroxide. This reaction develops great dead of heat which may cause ignition of nearby combustible materials.

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC032	Magnesia (Unslaked)	MHB			NA	705	NO 2	Separated from all packaged dangerous goods	Unslacked magnesia combines with water to magnesium hydroxide. This reaction develops heat which may cause ignited and may burn fiercely. Harmful if swallowed.
1474	Magnesium nitrate	5.1	III		1 kg	235	No 4	Category 4	White deliquescent crystals soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.
BC035	Metal Sulphide Concentrates	MHB			NA	225, 635, 640	No 8	Separated from food stuffs and all class 8 acids	Some suphide concentrates are liable to oxidation and may have a tendency to self-heat, with associated oxygen depletion and emission of toxic fumes. Some materials may present corrosion problems.
BC040	Petroleum coke	MHB			NA	311	No 6,	Separated from foodstuffs. Separated by a complete compartment or hold from all other dangerous and hazardous substances.	Black, finely divided residue from petroleum refining in the form of powder of small pieces. Should not be loaded when the temperature exceeds 107 degree C.
BC050	Pitch Prill, Prilled Coal Tar Pencil Pitch	MHB			NA	None	No 6	Segregation as required for class 4.1 materials	Exists in various sizes. Melts when heated. Combustible burns with dense smoke, Hazard according to flammability. Dust may cause skin and eye irritation.
1488	Potasssium Nitrate	5.1	III	-	1 Kg.	235	No. 4	Category A	White crystals or powder. Soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.
2912	Radioactive material Low specific Activity Material (LSA – 1)	7	-		None	None	No 11	Category A, except for uranyl nitrate hexahydrate solution for which category D applies. Separated from food stuffs. For segretation. See 7.2.9	See transport Schedule 5

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2913	Radioactive Material, surface contaminated object (s) (SCO – 1)	7	-		None	None	No 11	Category A separated from food foodstuffs.	Cargo spaces used for these materials should not be used for other goods unless decontaminated.
BC055	Sawdust	MHB			NA	None	No 5	Segregation as required for class 4.1 materials. Separation from all class 5.1 liquids and all class 8 liquids	Liable to cause oxygen depletion within cargo space. If not shipped clean, dry and free from oil, liable to spontaneous combustion.
1386	Seed Cake	4.2	III	Note 6	None	None	No 7	Category A, Keep dry. "Away from" all sources of heat. For special stowage provisions. See IMDG Code.	Residue remaining after oil has been extracted by a solvent process from oil bearing seeds. Used mainly as an animal feed or fertilizer. The most common seed cakes include those derived from coconut (copra) cottonseed, ground nut (peanut) linseed, maize (hominy chop) niger seed, palm kernel, rape seed, rice bran, soya bean and sunflower seed and they may be shipped in the form of cake, flakes, pellets, meal etc. May self-heat slowly if wet and ignite spontaneously. Before shipment, this cargo should be properly aged. The duration of ageing varies with the oil content. The seed cake should be substantially free from flammable solvent. Smoking and the use of naked lights should not be allowed during loading and unloading and on entry to cargo spaces at any other time.
2217	Seed Cake	4.2	III		None	None	No 7	Category A Keep	

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC060	Silicomanganese	MHB			NA	601, 605	No 1	Segregation as required for class 4.3 materials. Separated from food stuffs and all class 8 liquids.	In contact with water, alkalis or acides may evolve hydrogen, a flammable gas, may also produce phosphine and arsine which are highly toxic gases.
1498	Sodium nitrate, chile saltpeter Chilean natural nitrate	5.1	III	-	1 kg	235	No 4	Category A	Colourless deliquescent solid. Soluable in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed. This substance in the impure form is known as chile Saltpetre.
1499	Sodium Nitrate and Pottasium Nitrate Mixture	5.1	III	-	1 Kg	235	No 4	Category A	Colourless, hygroscopic solid, Soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed. Mixture prepared as a fertilizer.
1350	Sulphur	4.1	III		3 Kg	635	No 8	Category A. Protect from sparks and open flame "Separated from" class 5.1.	When involved in a fire, evolves toxic, very irritating and suffocating gas. The dust forms an explosive mixture with air which may be ignited by static electricity. Forms explosive and extremely sensitive mixtures with most oxidizing substances such as chlorates, nitrates perchlorates or permanganates. Corrosive to steel, in particular in the presence of moisture should not be carried as a bulk cargo. The provisions of this code should not apply to sulphur when it is (1)transported in quantities of less than 400 Kg per package or (20 formed to a specific shape (such as prills, granules, pellets, pastilles or flakes)

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC065	Tankage	MHB			NA	None	No 7	Segregation as required for class 4.2 materials. Separated by a complete cargo space or hold from food stuffs	Subject to spontaneous heating and possible ignition. Possibly infectious.
BC070	Vanadium Ore	MHB			NA	135	No 9	Segregation as required for class 6.1 materials. Separated form food stuffs	Dust may contain toxic constituents.
BC075	Woodchips	MHB			NA	615	No 5	Segregation as required for class 4.1 materials	Some consignments may be Subject of oxygen and an increase of carbon dioxide in the cargo space.
BC080	Wood Pulp Pellets	MHB			NA	615	No 5	Segregation as required for class 4.1 materials	Some consignments may be subject to oxidation, leading to depletion of oxygen and an increase of carbon dioxide in the cargo space.
1435	Zinc Ashes	4.3	III	Note 9	1 Kg	None	No 10	Category A	In contact with moisture or water ,liable to evolve dangerous gases, including hydrogen, a flammable gas.

NA : not applicable

Explanation of various columns

a) Column 1 : This column contains the United Nations Number assigned for a particular dangerous goods.
b) Column 2 : Contains the exact shipping name.
c) Column 3 : Contains the class or division this falls into.
 - Packaging Group I : Substances presenting high danger.
 - Packaging Group II : Substances presenting medium danger
 - Packaging group III : Substances presenting low danger.
d) Column 4 : Contains the packing group number where assigned to the substance or article.
e) Column 5 : Contains special provisions for carriage of goods as follows :

Note 1 : The transport of the following substances is prohibited.
AMMONIUM BROMATE
AMMONIUM BROMATE, SOLUTION
AMMONIUM CHLORATE

AMMONIUM CHLORATE, SOLUTION
AMMONIUM COMPOUND, MIXTURE
AMMONIUM COMPOUNDS, SOLUTION
AMMONIUM NITRATE liable to self-heating sufficient to initiate a decomposition
AMMONIUM NITRATES and mixutres of an inorganic nitrite with an ammonium salt
AMMONIUM PERMANGANATE
AMMONIUM PERMANGANATE, SOLUTION
CHLORIC ACID, AQUEOUS SOLUTION with a concentration exceeding 10 %
ETHYL NITRATE pure
HYDROCYANIC ACID with more than 20% acid, by mass
HYDROGEN CYANIDE, SOLUTION with more than 45% HYDROGEN CYANIDE
MERCURY OSXCYANIDE pure
METHYL NITRATE
PERCHLORIC ACID with more than 72% acid by mass
SILVER PICRATE, dry or wetted with less than 30% water by mass
ZINC AMMONIUM NITRATE

Note 2 : Uniform non-segregating MIXTURES OF AMMONIUM NITRATE/AMMONIUM SULPHATE with not more than 45% AMMONIUM NITRATE , and not more than 0.4% total combustible material are not subject to the provisions of this Code.

Note 3 : The consignment should be accompanied by a certificate from a recognized authority stating :

- moisture content;
- fat content
- details of anti-oxide treatment for meals older than 6 months (for UN 2216 only);
- anti-oxide concentration at the time of shipment, which must exceed 100mg/kg (for UN 2216 only)
- packing, number of bags and total mass of the consignment;
- date of production

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No weathering/curing is required prior to loading, Fishment under UN 1374 should have been weathered for not less than 28 days before shipment.

When fishment is packed into containers, the containers should be packed in such a way that the free air space has been restricted to the minimum.

Note 4 : This substance should preferably have weathered for not less than one month before shipment unless a certificate form a person recognized by the competent authority of the country of shipment states a maximum moisture content of 5%.

Note 5 : The provisions of this Codes should not apply, to-:

- Fishment when acidified and wetted with more than 40% water, by mass, irrespective of other factors :
- Consignment of fishment which are accompanied by a certificate issued by a recognized competent authority of the country of shipment or other recognized authority stating that the product has no self heating properties when transported in packaged form : or
- Fishment manufactured form "white" fish with a moisture content of not more than 12% and a flat content of not more than 5% by mass

Note 9 : If satisfied, as a result of tests, that such relaxation is justified, the competent authority may permit.

- the seed cakes described as "SEED CAKE, containing vegetable oil (a) mechanically expelled seeds, containing more than 10% of oil more than 20% of oil and moisture combined" to be transported under conditions governing "SEED CAKE, containing vegetable oil (b) solvent extractions and expelled seeds, containing not more than 10% of oil and, when the amount of moisture is higher than 10% not more than 20% of oil and moisture combined", and

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- the seed cakes described as "SEED CAKE", containing vegetable oil (b) solvent extractions and expelled seeds, containing not more than 10% of oil and, when the amount of moisture is higher than 10% not more than 20% of oil and moisture combined" to be transported under conditions governing SEED CAKE, UN 2217

Certificates from the shipper should state oil content and moisture content and should accompany the shipment.

Note 7 : A consignment of this substance which is accompanied by a declaration form the shipper stating that it has no self-heating properties is not subject to the provision of this code.

Note 8 : Requires a certificate from the maker or shipper, stating that the shipment was stored under cover, but in the open air, in the size in which it was packaged, for not less than 3 days prior to shipment.

Note 9 : Substances which do not evolve flammable gasses when wet, which are accompanied by a certificate from the shipper stating that the substance, as offered for shipment, does not evolve flammable gases when wet, are not subject to the provisions.of this Code.

Note 10 : Stabilization of fishmeal should be achieved to prevent spontaneous combustion by effective application of between 400 and 100 mg/kg (ppm) ethoxquin, or liquid BHT (butylated hydrooxytoluene) or between 1000 and 4000 mg/kg (ppm) BHT in power form at the time of production. The said application should occur no longer than twelve months prior to shipment, Fishcrap or Fishmeai should contain at least 100 ppm of anti-oxidant ethoxyquin at the time of shipment.

Note 11 : UN 1942 may be transported in bulk packaging if approved by the competent authority.

f) Column 6: Contains maximum quantity per inner packaging authorised for transport.(refer Chap 7.0)

g) Column 7: Contains guidance number of MFAG(Medical First Aid Guide) to be refered.

h) Column 8: Contains notes regarding emergency information. (See Table A below for Emergency Instructions),

i) Column 9: contains the stowage and Segregation provisions as per Sec. 6.for MHB and dangerous goods. The various categories are as follows:

Stowage Category	Cargo Vesels or passenger Vessels carrying a no. of passengers limited to not more than 25 or to 1 passanger per 3 m of overall length, which ever is greater.	Other Passanger Vessels in which the limiting number of passengers transported is exceeded.
A	On deck or under deck	On deck or under deck
B	On deck or under deck	On deck only
C	On Deck only	On deck only
D	On deck only	Prohibited
E	On deck or under deck	Prohibited

j). Column 10 : contains brief properties and observations of the dangerous goods.

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Table A : Emergency Instructions :

Note NO.	Special energy equipment to be carried	Emergency Procedure	Emergency Action in case of Fire	Medical First Aid			Remarks
1	Self contained breathing apparatus	Wear self - contained breathing apparatus	Batten down and use CO_2 is available. Do not use water	UN/BC No.	Material	MFAG Table No.	Materials are virtually non Combustible when dry Ref. : EmS schedule No. B2
				1395	ALUMINIUM FERROSILICON	601 & 605	
				1398	ALUMINIUM SILICON	None	
				BC 020	FERROPHOSPHOR US	601 & 605	
				1408, BC 022	FERROSILICON	601 7 605	
				BC 060	SILICOMANAGANESE	NONE	
2.	NIL	NIL	NIL (non-combustible)	UN/BC No.	MATERIAL	MFAG Table No.	If LIME (UNSLAKED) or MAGNESIA (UNSLAKED) involved in a fire, do not water. Ref. : EmS schedule no. B3
				BC 003	CALCINED PYRITES	700	
				BC 025	FLUORSPAR	705 & 750	
				BC 030	LIME (UNSLAKED)	705	
				BC 032	MAGNESIA (UNSLAKED)	705	
3	Protective clothing (boots, gloves, coveralls, headgear). Self contained breathing apparatus	Wear protective clothing and self contained breathing apparatus.	Fire in a cargo space containing this material : Open hatches to provide maximum ventilation. Vessels fixed – fighting installation will be Inadequate. Use copious quantities of water.	MFAG table No. 610.			Ref. : EmS Schedule No. B4.

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			Flooding of the cargo space amy be considered but due consideration should be given to stability. Fire in an adjacent cargo space : Open hatches to provide maximum ventilation. Heater transferred from fire is an adjacent space can cause the material to				
4.	Protective clothing (gloves. Boots. Coveralls, headgear) self contained breathing apparatus. Spray nozzles.	Wear protective clothing and self contained breathing apparatus.	Use copious quantities of water, which is best applied in the form of a spray to avoid disturbing the surface of the material. The material may fuse or melt, in which condition application of water may result in extensive scattering of the molten materials. Exclusion of air or the use of CO_2 will not control the fire. Due consideration should be given to the effect on the stability of the vessel due to accumulated water.	UN/BC No.	Material	MFAG Table No.	These material are non-combustible unless contaminated. Ref : EmS Schedule No. B5
				1438	ALUMINIUM NITRATE	235	
				1446	BARIUM NITRATE	120	
				1454	CALCIUM NITRATE	235	
				1469	LEAD NITRATE	110	
				1474	MAGENSIUM NITRATE	235	
				1486	POTASSIUM NITRATE	235	
				1498	SODIUM NITRATE	235	
				1499	SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	235	

5.	NIL	NIL	Batten down; use vessel's fixed fire – fighting installation if fitted. Exclusion of air may be sufficient to control fire	UN/BC No.	Material	MFAG Table NO.	Ref. EmS Schedule No. B6
				BC 005	CHARCOAL	NONE	
				1363	COPRA	NONE	
				BC 055	SAWDUST	Refer to paragraph 6.1.1 (Asphyxia) of the MFAG.	
				BC 075	WOODCHIPS	Refer to Paragraph 6.1.1 (Asphyxia) of the MFAG	
				BC 080	WOOD PULP PELLETS	Refer to Paragraph 6.1.1 (Asphyxia) of the MFAG	
6.	Protective clothing (gloves, boots, coveralls headgear) Self contained breathing apparatus. spray nozzles	Wear protective clothing and self contained beathing apparatus.	Batten down ; use vessel's fixed fire –fighting installation if available Exclusion of air may be sufficient to control fire.	UN/BC NO.	Material	MFAG table no.	Ref. EmS Schedule No. B7
				2969	CASTOR BEANS	851	
				1376	IRON OXIDE, SPENT	635, 640 & 645	
				BC 040	PETROLEUM COKE	311	
				BC 050	PITCH PRILL	NONE	

<table>
<tr>
<td>7.</td>
<td>Self – contained breathing apparatus</td>
<td>Wear self - contained breathing apparatus</td>
<td>Batten down, use vessel's fixed fire-fighting installation, if fitted.</td>
<td colspan="3">
<table>
<tr><th>UN/BC No.</th><th>Material</th><th>MFAG Table No.</th></tr>
<tr><td>2216</td><td>FISHMEAL, STABILIZED OR FISCHCRAP STABILISED</td><td>NONE</td></tr>
<tr><td>1386 & 2217</td><td>SEED CAKE</td><td>Refer to paragraph 6.1.1 (Asphyxia) of the MFAG</td></tr>
<tr><td>BC 065</td><td>TANKAGE</td><td>*</td></tr>
<tr><td colspan="3">* To be declared the shipper</td></tr>
</table>
</td>
<td>Material
SEED CAKE
UN Nos. 1386 & 2217

Ref EmS Schedule No.
B8

TANKAGE
BC 065</td>
<td>Remarks
In the case of solvent-extracted seed cake, the use CO2 should be withheld unit is apparent.

Use full protective othi in case of fire situation.</td>
</tr>
<tr>
<td>8.</td>
<td>Self-contained breathing apparatus</td>
<td>Wear self - contained breathing apparatus</td>
<td>Batten down, use vessel's fixed fire-fighting installation. Exclusion of air may be sufficient to control the fire. Do not use water.</td>
<td colspan="3">
<table>
<tr><th>UN/BC No.</th><th>Material</th><th>MFAG Table No.</th></tr>
<tr><td>BC 035</td><td>METAL SULPHIDE CONCENTRATES</td><td>225, 635, 640 & refer to paragraph 6.2.2 (Asphyxia) of the MFAG, 635 (Fire risk only)</td></tr>
<tr><td>1350</td><td>SULPHUR</td><td>635 (fire riskonly)</td></tr>
</table>
</td>
<td colspan="2">Fire will most likely be detected by choking smell sulphur dioxide.

Ref. EmS Schedule No. B9</td>
</tr>
<tr>
<td>9.</td>
<td>Self-contained breathing apparatus</td>
<td>Wear self-contained breathing apparatus</td>
<td>Batten down, use vessel's fixed fire-fighting installation if fitted. Exclusion of air may be sufficient to control the fire.</td>
<td colspan="3">MFAG table no. 135</td>
<td colspan="2">Ref : EmS Schedule No. B1</td>
</tr>
</table>

10	Protective clothing (gloves, boots, coveralls, headgear) Self-contained berthing apparatus.	Wear protective clothing and self contained breathing apparatus	Batten down, use vessel's fixed fire-fighting installation if available. Do not use water	MFAG table no. NONE		If fire cannot be extinguished, endeavour to stop fire from spreading an head for the nearest suitable port. Ref. EmS Schedule No. B1
11	Protective clothing (gloves, boots, coveralls, headgear) Self contained berthing apparatus	Wear protective clothing and Self-contained breathing apparatus	Batten down, use vessel's fixed fire – fighting installation if fitted. Use water spray to control spread of dust, if necessary.	See subsection 7.4 of the MFAG Radio for medical advice.		Most materials are likely to be non-combustible. Speedily collect and isolate potentially contaminated equipment and cover, Seel expert advice. Ref. EmS Schedule No. B1
12	NIL	NIL	Whilst at sea, any rise in surface temperature of the material indicates a self-heating reaction problem. If the temperature should rise to 80^0 C a potential fire situation is developing and the vessel should make for the nearest suitable port. Batten down. Water should not be used at sea. Early application of an inert gas to a smouldering situation may be effective.	Refer to paragraph 6.1.1 (Asphyxia) of the MFAG		In port copious quantities water may be used but consideration should be given to stability. Ref. EmS Schedule No. B1

13.	NIL	NIL	Batten down. Exclusive of air may be sufficient to control the fire. Do not use water. Seek expert advice and consider heading for nearest suitable port.	MFAG table No. 311. 616 & refer to paragraph 6.1.1 (Asphyxia) fo the MFAG.	The use of CO2 or insert ga if available should be withheld until fire is apparent. Ref. EmS Schedule No. B1
14.	NIL	NIL .	Keep battened down. Do not use water. Seek expert advice. Early application of an tnert gas to a smouldering situation may be effective.	Refer to paragraph 6.1.1 (Asphyxia) of the MFAG	Ref. EmS Schedule No. B1

Enclosure 3

List of bulk materials which are neither liable to liquefy (Enclosure 1) nor to possess chemical hazards (Enclosure 2)

1. It should be carefully noted that this list of materials is not exhaustive and that the physical properties attributed to them are for guidance only.

2. The following materials are non- cohesive when dry :

AMMONIUM NITRATE FERTILIZERS (NON-HAZARDOUS)
AMMONIUM SULPHATE
BORAX ANHYDROUS
CALCIUM NITRATE FERTILIZER
DIAMMONIUM PHOSPHATE
MONOAMMONIUM PHOSPHATE
MURIATE OF POTASH (POTASSIUM CHLORIDE) (KCI)
POTASH
POTASSIUM SULPHATE
SUPERPHOSPHATE
UREA

Prior to completion of loading, the angle of repose of the materials to be loaded should be determined (see section 6) so as to determine which provisions of this Code relating to trimming apply (see section 5).

3. All other materials listed in this Enclosure are cohesive and use of the angle of repose is, therefore, not appropriate. Materials not listed should be treated as cohesive until otherwise shown.

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Annexure – VII

Material	Approx. angle of repose	Approx stowage factor (m^3/t)	Properties, observations and special requirement
ALFALFA		1,39 TO 1.97	Material derived from dried alfalfa grass. Shipped in the form or meal, pellets etc. Requires a certificate from a competent authority or shipper stating that the material as shipped does not meet the requirements for seed cake under Enclosure-2.
ALUMINA		0.92 TO 1.28	Fine white very dusty or colourless crystalline powder. Insoluble in water and organic liquids. Irritating to mucous membranes and eyes. Moisture : 0% to 5% Use dust mask and goggles when handling.
ALUMINA calcined (CALCINED CLAY)		0.61	Consists of lumps, particles and pieces with small amount of powder, dusty. Moisture : None Light to dark grey
ALUMINA SILICA		0.70	Consisting of alumina and silica crystals– 60% Lumps 40% coarse – grained powder Moisture : 1% to 5% White
		0.78 to 0.84	Length : 6.4 mm to 25.4 mm Diameter : 6.4 Moisture : None Off-White
ALUMINA SILICA Pellets AMMONIUM NITRATE FERTILIZERS (NON-HAZARDOUS)	27° to 45°	0.83 to 1.00	(A) Uniform non-segregating mixtures of ammonium nitrate with calcium carbonate and/ or dolomite, containing not more than 80% of ammonjum nitrate, provided they contain not less than 20% of these carbonates (of minimum purity 90%) and not more than 0.4% of total combustible material (see also Enclosure 2-ammonium nitrate fertilizers type A2). (B) Uniform non-segregating mixtures of ammonium nitrate / ammonium sulphate containing not more than 45% of ammonium nitrate and not more than 0.4% of total combustible material (see also Enclosure 2 – ammonium nitrate fertilizers type A3) (C) Uniform non – segregating mixtures of nitrogen / phosphate or nitrogen/potash types or complete fertilizers of nitrogen /phosphate /potash type containing note more than 70% of ammonium nitrate and note more than 0.4% of total combustible material or containing not more than 45% of ammonium nitrate with unrestricted combustible matter.

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
AMMONIUM NITRATE (CONTINUED)			The mixtures are considered non – hazardous when, as a result of testing by the trough test they are found to be free from the risk of self sustaining. Decomposition, provided they do not contain an excess of nitrate calculated as potassium nitrate above the ammonium nitrate content calculated in the notes below greater than 10% by weight of the mixture. Mixtures in which excess nitrate is present in greater proportions than this should be referred to the competent authority (see also Enclosure 2 ammonium fertilizers type B) Notes (1) All nitrate ions for which there is present in the mixture a molecular equivalent of ammonium ions should be calculated as ammonium nitrate . (2) Ammonium nitrate materials which are liable to self-heating sufficient to initiate a decomposition are prohibited. (3) The compatibility of non-hazardous ammonium nitrate mixtures with other materials which may be stowed in the same cargo space should be considered before loading.
AMMONIUM SULPHATE	28° TO 35°	0.95 TO 1.06	Chemical Fertilizers A crystalline solid, which readily absorbs moisture Moisture : 0.04 to 0.5% Liable to cake as a result of absorption of moisture. Carried in bulk. Danger of heavy corrosion of framing side plating etc is present if sweating of cargo space develops. The recommendations given for materials of class 8 with regard to the cleaning of the cargo space after unloading should be followed (See Section 9 Materials possessing chemical hazards, paragraph 9.3.2.4) Ammonia Odour Subject to natural loss of weight.
ANTIMONY ORE (STIBNITE) AND RESIDUE		0.34 TO 0.43	Crystalline ore mineral. A sulphate of barium. Used in paints textiles and as filler for paper. 80% lumps 6.4mm to 10.16 mm 20% fines < 6.4mm Moisture : 1% to 6%
BARYTES		0.34	

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
BAUXITE		0.72 TO 0.84	Clay-like and earthy ore. The principal ore of alluminium 70% to 90% lumps : 2.5mm to 500 mm 10% to 30% powder Moisture : 0% to 10% Brownish yellow.
BORAX ANHYDROUS (CRUDE OR REFINDED)	35^{O}	0.78.	Uniform granular material less than 1.4mm in size. Highly refined is of white crystalline appearance. The crude material is normally of yellow-white appearance; can be dusty, dust is irritating, but not toxic, if inhaled, Hygroscopic and will cake if wet; very abrasive.
BORAX (PENTAHYDRATE CRUDE "RASORITE 46")		0.92	Fine Powder and granule less than 2.36mm in size, grey, dusty, dust is irritating if inhaled but not toxic. Hygroscopic and will cake if wet. Used as the major source of borax and boron products.
CALCIUM NITRATE FERTILIZER	34"	0.90 to 0.95	Granules, size 1mm to 4mm, consisting mainly of double salt (calcium nitrate and ammonium nitrate) and containing not more than 15.5% total nitrogen and at least 12% water. In case the total nitrogen content exceeds 15.5% or the water content is less than 12% see Enclosure 2.
CARBORUNDUM		0.56	A hard crystalline compound of carbon and silicon. Slight toxicity by inhalation. Used as an abrasive and for refractory purposes. 75% lumps : 203, 2mm 25% lumps, 12.7 mm Moisture : none Odourless Black
CEMENT		0.67 to 1.00	Fine grey powder. Maximum particle size 0.1mm Both specific gravity and angle of repose are dependent upon the amount of air in the material. Cement contracts approximately 12% from an aerated to non aerated state. Normally cement is carried in specially designed vessels and trimming is carried out with special equipment. Masters of vessels not specially fitted for the carriage of cement or who are unaware of the characteristics of such cargo should consult local authorities for advice. Considering the fluid nature of the cement prior to settlement, care should be taken to maintain the vessel upright during loading, and attention should be given to ensuring that the material is trimmed reasonably level. Consideration material is trimmed reasonably level. Consideration should also be given to taking any necessary measures to ensure that the cargo has settled and is

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
CEMENT (CONTINUED)			Stable before the vessel sails, especially where the loading rate is extreme in relation to the total deadweight loaded. After the material has settled, shifting should not normally occur unless the angle of the surface with the horizontal plane exceeds 30° Should be kept dry prior to loading, bilges should be made sift-proof and cargo spaces thoroughly cleaned. Contamination of cement renders it useless as a binding agent.
CEMENT CLINKERS		0.61 TO 0.84	Unground cement Size : 0 mm to 40 mm Moisture : 0% to 5%
CHAMOTTE		1.50	Burned clay, Shipped in the form of the crushed stone. Used by zinc smelters and in manufacture of firebrick (road metal) Size : up to 10mm Greay
CHROME ORE (CHROMIUM ORE)		0.33 TO 0.45	Ore : Size 6.4 mm to 254mm Hard, compact, granular, crystalline Bluish-black Toxic by dust inhalation Loading and unloading operations should be closely supervised to prevent exposure to dust.
CHROME PELLETS		0.60	Pellets Size : 10mm to 25mm Moisture : up to 2% maximum
CLAY		0.66 to 1.34	Powdery to 100mm Moisture : up to 18% Odourless Whitish to beige
COKE (coal origin)		1.25 to 2.93	Used for furnace work asd as a fuel From lines up to 120mm Moisture : 5% to 20%
COLEMANITE		0.61	A natural hydrated calcium borate. Used in boric acid and sodium borate. Fine to large lumps : 300 mm Moisture : approximately 7% Light grey appearance similar to clay
COPPER GRANUELS		0.22 to 0.25	Spherical pebbles : fines up to 10mm with cinkers up to 50mm 75% copper with lead, tin zinc, traces of others Moisture : 1.5% approximately Odourless Dry, light greay, Wet; dark green

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
COPPER MATTE		0.25 to 0.35	Crude black copper ore Small metallic round stones or pellets Size 3mm to 25mm 75% copper : 25% impurities Moisture : none Odourless Metallic black
CRYOLITE		0.70	A Fluoride of sodium and aluminum used in production of aluminum and for ceramic galzes. Pellets: 6.4mm to 12.7mm long Slightly pungent odour Grey Prolonged contact may cause serious damage to the skin and nervous system.
DIAMMONIUM PHOSPHATE	30^{O}	1.20	Ferlilizer Diameter : 2.54 mm Grey Slightly pungent odour
DOLOMITE		0.56 TO 0.65	A carbonate of calcium and magnesium. Used for refractory purposed, road construction and as a fertilizer compound. Size : 0.1mm to 19.00 mm Moisture : none Odourless Off-White, brown tones Note : DOLOMITE may sometimes, incorrectly, be used to describe a material consisting of the oxides of calcium and magnesium (dolomitic quickline). In this case see "LIME (UNSLAKED) in Enclosure 2
FELSPAR LUMP		0.60	Crystalline minerals consisting of silicates of aluminium with potassium, sodium, calcium and barium. Used in ceramics and enamelling Shipment in different sizes between 0.1mm and 300mm. White or reddish colour.
FERROCHROME		0.18 to 0.26	Raw material of iron mixed with chrome. Shipment in different sizes between 0.1 mm and 300mm. Moisture : none
FERROCHROME exothermic		0.18 to 0.26	An alloy of iron and chromium Warming : no welding or hot work should be permitted in vicinity.
FERROMANGANESE		0.18 to 0.26	Raw material or iron mixed with manganese. Shipment in different sizes between fines and 300 mm

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
FERROMANGANESE exothermic		0.18 to 0.28	Dry, non-dusty, gravel-type mixture of lumps and powder. An alloy of iron and nickel.
FERLIZERS WITHOUT NITRATES, non – hazardous		0.90 to 1.40	Powder and granular Size : 1 min to 3 mm Moisture : 0% to less than 1% Odourless Greyish/Brown/Beige
FISHMEAL(Anti oxidant treated)		1.7	For properties : See Fishmeat, stabilized (Enclosure B) only permitted for transport if accompanied by a certificate issued by the competent authority of the country of shipment stating that the material has no self-heating properties when transported in bulk.
FLY ASH		1.26	Light finely divided and dusty black powder Diameter 2 mm to 3mm Residual ash from oil or coal fired power stations : Fly ash may sometimes. Incorrectly be used to described calcined pyrites being the residue of chemical industry and containing a percentage of free acid (low pH value) an entry has been included in Enclosure 2 (BC no 003)
GRANULATED SLAG		0.90	Residue of blast furnaces in granulated form. Used by industry Detrimental if loaded too hot Size : 0mm to 5mm Iron : 0.5%
GYPSUM		0.67 TO 0.78	A natural hydrated calcium slphate, insoluble in water. Used in cement, tiles, plaster, plate glass etc. Fine powder to 100mm Average moisture : 1% to 2%
ILMENITE SAND		0.31 to 0.42	Block sand, average size 0.15mm Abrasive Monazite, Zircon and titanium are obtained from ilemenite sand. Material should be kept dry. Moisture : 1% to 2%
IRON ORE		0.29 TO 0.80	Ore Fines and lumps Size : fines to 250mm Dusty Moisture : 0% to 16%

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
IRON ORE PELLETS		0.24 to 0.53	Ore Round pellets Up to 20 mm Moisture : 0% to 2%
IRON PYRITES		0.40	Iron Sulphide. Used in the manufacture of sulphuric acid. 20% fines : 80% lumps Size : 30mm to 150mm
IRONSTONE		0.39	Ore Maximum Size : 75mm Moisture : 1% to 2%
LABRADORITE		0.60	A Lime soda rock form of felspar. Lumps between 50mm and 300mm
LEAD ORE		0.24 TO 0.67	Powdery : Tonic with acids evolves highly toxic vapour.
LIMESTONE		0.67 TO 0.84	A Sedimentary rock containing calcium carbonate Lumps : Size 25mm to 75mm Moisture : up to 4%
MAGNESIA (DEAD- BURNED) (DEADBURNED) MAGNESITE ELECTROFUSED MAGNESIA, MAGNESITE CLINKER, MAGNESIA CLINKER)		0.5	Magnesium oxide, non reactive with water. Used for refractory purposes. Granular, white. For light burned magnesia, Calcined, caustic calcined or unslaked magnesia, see entry in Enclosure 2 Prior to loading. A declaration should be provided by the manufacturer or shipper stating that the material, as offered for shipment, has been sufficiently heat treated and is ready for loading.
MAGNESITE, natural		0.7	Crystalline carbonate of magnesium. Used for refractory purposes Powder/fines to lumps Size : 3mm to 30mm Odorless Yellowish Moisture : none
MANGANESE ORE		0.32 TO 0.70	Ore Fine dust to lumps Size : bellow 5mm to 250mm Moisture : variable up to 15%
MARBLE CHIPS		0.85 TO 1.00	Dry, dusty, white to grey lumps, particles and powder mixed with a small amount of gravel and pebbles. Moisture : none

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
MILORGANITE		1.53	Heat –dried activated sludge. Very fine granular product Moisture : 3% to 5% Black speckled colour
MONOAMMONIUM PHOSPHATE	38^o	1.21	Can be highly corrosive in presence of moisture. Acidity and impurity such as chloride ions in the absence of calcium ions may increase corrosion. Ammonium phosphates with pH greater than 4.5 are essentially non0corrosive. Continuous carriage may have detrimental structural effects over a long period of time.
MURIATE OF POTASH	30^o TO 47^o	0.81 TO 1.12	Fertilizer White crystals. In granular and powder form. Moisture : Variable Lodine Odour.
PEANUTS (IN SHELL)		3.29	Extremely dusty. Moisture : Variable Tan colour
PEBBLES (SEA)		0.59	Round pebbles : 30mm to 110mm Roll very easily; should be overstowed with a layer of sacks
PELLETS (concentrates)		0.47	Concentrate ore which has been polletized. Approximately 10mm Moisture up to 6%
PERLITE ROCK		0.98 TO 1.06	Clay-like and dusty Moisture : 0.5% to 1% Light grey Odourless
PHOSPHATE Defluorinated		1.12	Granular, similar to fine sand Moisture : none Dark grey
PHISPHATE ROCK, calcined		0.64 to 1.26	Mineral, fertilizer Usually in the form of fine ground rock or prills. Extremely dustry Is hydroscopic and will cake and harden if wet. Keep dry.
PHOSPHATE ROCK, uncalcined		0.70	An ore in which phosphorous and oxygen are chemically united. Lumps and powder. Low angle of repose after loading, but once settled not liable to shift Dusty. Moisture : 0% to 2%
PIG IRON		0.30	High-carbon iron Size : 80mm x 90mm x 550 mm

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
POTASH	32^o TO 35^o	0.77 TO 1.03	A carbonate of potassium. Used in fertilizers and soaps. Granular Moisture : Variable to 2% Brown, Pink, white
POTASSIUM SULPHATE	31^o	0.90	Hard crystals or powder Used in aluminium, glass etc Colourless or white.
PUMICE		1.90 to 3.25	Highly porous rock of volcanic origin. Used as an abrasive Powder or lumps Greyish – white
PYRITE (containing copper and iron)		0.33 to 0.50	Iron disulphide containing copper and iron. Used in the manufacture of sulphuric acid. Fines and lumps. Various sizes from fines to 300mm Moisture : 0% to 7%
PYROPHYLLITE		0.50	A natural hydruous aluminium silicate. Used in ceramincs, slate, pencils etc. 75% lumps; 20% rubble; 5% fines Chalk – White
QUARTZ		0.60	Crystalline lumps between 50mm and 300mm
QYARTZITE		0.64	Lumps of 10mm to 130mm Moisture: under 1% White, red, brown.
RASORITE (ANHYDROUS)		0.67 TO 0.78	Uniform granular materials less than 2.36mm in Size; crystalline; yellow-white; little or no dust; abrasive Hygroscopic and will cake if wet.
RUTILE SAND		0.39	Fine-particled material 60% less than 0.15mm. Abrasive. Material is used for hardening steel Shipped dry.
SALT		0.81 TO 1.12	Sizes : grain fines to 12mm Moisture : Variable to 5.5% White
SALT CAKE		0.89 TO 0.95	Impure sodium sulphate. Used in ceramic glazes Granular Moisture : None White
SALT ROCK		0.98 TO 1.06	Small granules. Moisture : 0.02% White

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
SAND (FOUNDRY, QUARTZ, SILICA, POTTASSIUM, FELSPAR, SODA, FELSPAR)		0.50 TO 0.98	Usually fine particled. Abrasive. Used for a variety of purposes, including glass and steel making.
SCRAP METAL (See also ferrous metal borings, shavings, turnings of cuttings, Enclosure B).		Varies	Various types of scrap metal, engine blocks, etc. (when finely divided, see Enclosure 2)
SEED CAKE		1.39 TO 2.09	Used mainly as animal feed or fertilizers. Requires a certificate from a competent authority or shipper stating that requirements for exemption are met as set out in the entries for SEED CAKE(b) and (c) in Enclosure 2
SODA ASH (dense and light)		1.03 to 1.67	Sodium carbonate Powdery Moisture : 0% to 20% White
STAINLESS STEEL GRINDING DUST		0.42	Caked 75mm to 380mm lumps Moisture : 1% to 3% Brown
STONE CHIPPINGS		0.71	Fines to 25mm
SUGAR (raw, raw brown, refined white)		1.0 to 1.60	Powdery Moisture : 0% to 0.05%
SULPHATE OF POTASH AND MAGNESIUM		0.89 TO 1.00	Granular, light born material Solution in water in almost neutral. May have a slight odour, depending on the process of manufacture. Metting point : 72°C Moisture : 0.02%
SUPERPHOSPHATE		0.84 TO 1.00	A FERTILIZER COMPOSED OF PHOSPHATE TREATED WITH SULPHURIC ACID. Granular, fines and powdery, up to 0.15mm diameter in size. Moisture : 0% to 7% Greyish white

By order and in the name of the Governor of Gujarat

B.K.SINHA
Additional Chief Secretary

Government Central Pres, Gandhinagar

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The Gujarat Government Gazette

EXTRAORDINARY

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Separate paging is given to this part in order that it may be filed as a Separate Compilation.

PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

મહિલા અને બાળ વિકાસ વિભાગ,

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૭મી એપ્રિલ, ૨૦૧૧

કમિશન ફોર પ્રોટેકશન ઓફ ચાઈલ્ડ રાઈટસ એક્ટ-૨૦૦૫.

નં : ગુ. રા.-(૩)-૨૦૧૧-મહય-૧૦૨૦૧૦-૨૧૯૫-અ .- કમિશન ફોર પ્રોટેકશન ઓફ ચાઈલ્ડ રાઈટસ એક્ટ, ૨૦૦૫ (૨૦૦૬નો ૪થો) ની કલમ ૧૭ મુજબ રાજ્ય કક્ષાએ કમિશન ફોર પ્રોટેકશન ઓફ ચાઈલ્ડ રાઈટસની કામગીરી ગુજરાત રાજ્ય મહિલા આયોગ, ગાંધીનગરને સોંપવામાં આવે છે.

તદ્ઉપરાંત મહિલા આયોગે રાઈટ ટુ એજ્યુકેશન એક્ટ-૨૦૦૯ની કલમ ૩૧ના અમલીકરણની પણ કામગીરી કરવાની રહેશે.

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

દર્પણા ધીમ્મર,
સરકારના નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

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વન અને પર્યાવરણ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૧૫મી એપ્રિલ, ૨૦૧૧.

વન્ય પ્રાણી (સંરક્ષણ) અધિનિયમ, ૧૯૭૨

ક્રમાંક : વપસ-૨૦૧૧-૯-ડબલ્યુએલપી-૧૦૧૧-૪૯૨-ડબલ્યુ.

સંદર્ભ : (૧) વન અને પર્યાવરણ વિભાગના

(૧) તા. ૬-૭-૨૦૦૬ના જાહેરનામા ક્રમાંક : ગવન-૨૦૦૬-૧૧-ડબલ્યુએલપી-૨૦૨૦૦૫-૩૫૯-ગ(૧)(૧૬૬૨)

(૨) તા. ૧૫-૧-૨૦૦૭ના જાહેરનામા ક્રમાંક : ગવન-૨૦૦૭-૧-ડબલ્યુએલપી-૨૦૨૦૦૫-૩૫૯-ગ(૧)(૧૬૬૨)

(૩) તા. ૧૮-૫-૨૦૦૭ના જાહેરનામા ક્રમાંક : ગવન-૨૦૦૭-૨૭-ડબલ્યુએલપી-૨૦૨૦૦૫-૩૫૯-ગ(૧)

(૪) તા. ૨૭-૧-૨૦૦૯ના જાહેરનામા ક્રમાંક : ગવન-૨૦૦૯-૮-ડબલ્યુએલપી-૧૦૨૦૦૯-એસએફ-૪૯-ડબલ્યુ

(૫) તા. ૨૭-૧-૨૦૦૯ના જાહેરનામા ક્રમાંક : ગવન-૨૦૦૯-૬-ડબલ્યુએલપી-૧૦૨૦૦૯-એસએફ-૪૯-ડબલ્યુ

(૬) તા. ૨૭-૧-૨૦૦૯ના જાહેરનામા ક્રમાંક : ગવન-૨૦૦૯-૭-ડબલ્યુએલપી-૧૦૨૦૦૯-એસએફ-૪૯-ડબલ્યુ

(૨) અગ્ર મુખ્ય વન સંરક્ષકશ્રી, (વન્ય પ્રાણી), ગુજરાત રાજ્ય, ગાંધીનગરનો તા. ૧૫-૩-૨૦૧૧નો પત્ર ક્રમાંક : વપસ-૨૬.૧-અ-૧૩૦૪-૨૦૧૦-૧૧

રાજયના ખેતીના ઉભા પાકને રોઝડા ધ્વારા વ્યાપક પ્રમાણમાં નકસાન કરવામાં આવતું હોવાથી આ રોઝડાઓના નિકાલ કરવાની પરવાનગી આપવા વન્ય પ્રાણી (સંરક્ષણ) અધિનિયમ-૧૯૭૨ (સુધારેલ-૨૦૦૨) ની કલમ-૪-પેટા કલમ-૧ (બીબી) હેઠળ મળેલ સત્તાની રૂએ રાજ્ય સરકારના વન અને પર્યાવરણ વિભાગના સંદર્ભ (૧)(૧) માં દર્શાવેલ તા. ૬-૭-૨૦૦૬નું જાહેરનામાં તથા સંદર્ભ (૧)(૨)માં દર્શાવેલ તા. ૧૫-૧-૨૦૦૭ના જાહેરનામામાં દર્શાવેલ જિલ્લાઓના આ જાહેરનામાઓ સાથેની અનુસૂચિમાં દર્શાવેલ કુલ ૧૫૪૫ ગામોના સરપંચશ્રીઓને જે તે ગામ માટે "માનદ વન્ય પ્રાણી સંરક્ષક" તરીકે નિયુક્તિ કરવામાં આવેલ જેની મુદત પૂર્ણ થતાં સંદર્ભ (૧)(૩) માં દર્શાવેલ જાહેરનામાંથી આ મુદત તા. ૩૧-૩-૨૦૦૯ સુધી તેમજ સંદર્ભ (૧)(૪)માં દર્શાવેલ જાહેરનામાંથી આ મુદત તા. ૩૧-૩-૨૦૧૧ સુધી વધારવામાં આવેલ તદઉપરાંત સંદર્ભ (૧)(૫)માં દર્શાવેલ જાહેરનામામાં દર્શાવેલ જાહેરનામાંથી આ જાહેરનામામાં દર્શાવેલ જિલ્લાઓના આ જાહેરનામા સાથેની અનુસૂચિમાં દર્શાવેલ ૧૬૮૨ ગામોના સરપંચશ્રીઓને માનદ વન્ય પ્રાણી સંરક્ષક (ઓનરરી વાઈલ્ડ લાઈફ વોર્ડના) તરીકે તા. ૩૧-૩-૨૦૧૧ અથવા સરકારશ્રી ઈચ્છે તે બે પૈકી જે વહેલું હોય તેટલા સમય માટે નિમણૂંક કરવામાં આવેલ. તેમજ સંદર્ભ (૧) (૬)માં દર્શાવેલ તા. ૨૭-૧-૨૦૦૯ના જાહેરનામાથી બનાસકાંઠા જિલ્લાના ૧૦ ગામોના વિસ્તાર માટે ગુજરાત કૃષિ યુનિવર્સિટીના રજીસ્ટ્રારશ્રીને માનદ વન્ય પ્રાણી સરંક્ષક (ઓનરરી વાઈલ્ડ લાઈફ વોર્ડન) તરીકે તા. ૩૧-૩-૨૦૧૧ અથવા સરકારશ્રી ઈચ્છે તે બે પૈકી વહેલું હોય તેટલા સમય માટ નિમણૂંક કરવામાં આવેલ.

૨. ઉપર ફકરા-૧માં દર્શાવ્યા મુજેબ સંદર્ભ (૧)(૧)માં દર્શાવેલ તા. ૬-૭-૨૦૦૬ના જાહેરનામા તથા સંદર્ભ (૧)(૨)માં દર્શાવેલ તા. ૧૫-૧-૨૦૦૭ના જાહેરનામામાં દર્શાવેલ જિલ્લાઓના આ જાહેરનામાઓ સાથેની અનુસૂચિમાં દર્શાવેલ કુલ ૧૫૪૫ ગામોના સરપંચશ્રીઓની તથા સંદર્ભ (૧)(૫)માં દર્શાવેલ તા. ૨૭-૧-૨૦૦૯ના જાહેરનામામાં દર્શાવેલ જિલ્લાઓના આ જાહેરનામા સાથેની અનુસૂચિમાં દર્શાવેલ ૧૬૮૨ ગામોના સરપંચશ્રીઓની તેમજ સંદર્ભ (૧)(૬)માં દર્શાવેલ તા. ૨૭-૧-૨૦૦૯ના જાહેરનામામાં દર્શાવેલ બનાસકાંઠા જિલ્લાના ૧૦ ગામોના વિસ્તાર માટે ગુજરાત કૃષિ યુનિવર્સિટીના રજીસ્ટ્રારશ્રીની માનદ વન્ય પ્રાણી સંરક્ષક (ઓનરરી વાઈલ્ડ લાઈફ વોર્ડના) તરીકે નિમણૂંકની મુદત તા. ૩૧-૩-૨૦૧૧ના રોજ પૂર્ણ થનાર હોઈ સંદર્ભ (૨) માં દર્શાવેલ અગ્ર મુખ્ય વન સંરક્ષકશ્રી (વન્ય પ્રાણી) ગાંધીનગરના તા. ૧૫-૩-૨૦૧૧ના પત્રથી મળેલ દરખાસ્ત અન્વયે સંદર્ભ (૧)(૧) માં દર્શાવેલ તા. ૬-૭-૨૦૦૬ના જાહેરનામાં તથા સંદર્ભ (૧)(૨)માં દર્શાવેલ તા. ૧૫-૧-૨૦૦૭ના જાહેરનામામાં દર્શાવેલ જિલ્લાઓના આ જાહેરનામાઓ સાથેની અનુસૂચિમાં દર્શાવેલ કુલ ૧૫૪૫ ગામોના સરપંચશ્રીઓની તથા સંદર્ભ (૧)(૫)માં દર્શાવેલ તા. ૨૭-૧-૨૦૦૯ના જાહેરનામામાં દર્શાવેલ જિલ્લાઓના આ જાહેરનામાં સાથેની અનુસૂચિમાં દર્શાવેલ ૧૬૮૨ ગામોના સરપંચશ્રીઓની અને સંદર્ભ (૧)(૬)માં દર્શાવેલ તા. ૨૭-૧-૨૦૦૯ના જાહેરનામામાં દર્શાવેલ બનાસકાંઠા જિલ્લાના ૧૦ ગામોના વિસ્તાર માટે ગુજરાત કૃષિ યુનિવર્સિટીના રજીસ્ટ્રારશ્રીની માનદ વન્ય પ્રાણી સંરક્ષક (ઓનરરી વાઈલ્ડ લાઈફ વોર્ડન) તરીકે નિમણૂકની મુદત તા. ૩૧-૩-૨૦૧૩ સુધી અથવા સરકારશ્રી ઈચ્છે તે બે પૈકી જે વહેલું હોય તેટલા સમય માટે આથી વધારવામાં આવે છે.

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

પી. એમ. ક્રિશ્ચિયન,
સરકારના નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

HOME DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 26th April, 2011

CODE OF CRIMINAL PROCEDURE, 1973

No.GG/ 22 /CRC/1011/1227/M :- In exercise of the powers conferred by sub-sections (1) and (4) of section 20 of the Code of Criminal Procedure, 1973 (II of 1974) in its application to the State of Gujarat and in supersession of all the notifications issued in this behalf, so far as they relate to the appointment of Prant Officer as the Sub- Divisional Magistrate, the Government of Gujarat hereby appoints the persons now or hereafter, permanently or temporarily holding the office of the Prant Officer specified in column (3) of the Schedule appended hereto as the Executive Magistrates to be called as the Sub -Divisional Magistrates for the areas respectively specified in column (5) of the said Schedule.

By order and in the name of the Governor of Gujarat.

N. K. ZINZUWADIA,
Deputy Secretary to Government.

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SCHEDULE

Sr. No.	Name of District	Name of Prant Office		Head quarter	Aarea
(1)	(2)	(3)		(4)	(5)
1	Ahmedabad	1	Sabarmati Prant	Collector Office, Ahmedabad	Sabarmati, Ghatlodiya, Asarva, Naroda (Daskoi Part)
		2	Vejalpur Prant	Vejalpur	Vejalpur, Daskoi (part), Sanand (part), Sanand
		3	Maninagar Prant	Maninagar	Maninagar
		4	Navrangpura Prant	Navrangpura	Ellis Bridge, Naranpura, Dariyapur, Kajipur, Dani limda, Jamalpur, Khadiya Daskroi(part)
		5	Viramgam Prant	Viramgam city	Viramgam, Mandal, Detroj
		6	Dholka Prant	Dholka	Bavla, Dholka Sanand
		7	Dhandhuka Prant	Dhandhuka	Dhandhuka, Barvala, Ranpur
2	Anand	1	Anand Prant	Anand	Anand (City), Anand (Rural), Umreth
		2	Petlad Prant	Petlad	Petlad, Sojitra
		3	Borsad Prant	Borsad	Borsad, Anklav
		4	Khambhat Prant	Khambhat	Khambhat, Tarapur
3	Amreli	1	Amreli Prant	Amreli	Amreli, Vadiya
		2	Rajula Prant	Rajula	Rajula, Jafrabad
		3	Savar Kundla Prant	Savar Kundla,	Savar Kundla, Liliya
		4	Lathi Prant	Lathi	Lathi, Babra
		5	Dhari Prant	Dhari	Dhari, Bagasra, Khambha
4	Banaskantha	1	Palanpur Prant	Palanpur	Palanpur,, Vadgam
		2	Deesa Prant	Deesa	Deesa, Kankrej
			Tharad Prant	Tharad	Tharad, Vav
		4	Ambaji Prant	Ambaji	Danta, Amirgadh
		5	Dhanera Prant	Dhanera	Dantivada, Dhanera
		6	Diyodar Prant	Diyodar	Diyodar, Bhabhar
5	Bharuch	1	Bharuch Prant	Bharuch	Bharuch, Vagra
		2	Ankleshvar Prant	Ankleshwar	Ankleshwar, Hansot
		3	Jambusar Prant	Jambusar	Jambusar, Amod
		4	Zaghadiya Prant	Bharuch	Zaghadiya, Valiya
6	Bhavnagar	1	Bhavnagar Prant	Bhavnagar	Bhavnagar City, Bhavnagar Rural, Ghogha
		2	Mahuva Prant	Mahuva	Mahuva
		3	Palitana Prant	Palitana	Palitana, Gariyadhar
		4	Shihor Prant	Shihor	Shihor, Vallabhipur, Umrala
		5	Botad Prant	Botad	Botad.Gadhada,
		6	Talaja Prant	Talaja	Talaja
7	Dahod	1	Dahod Prant	Dahod	Dahod, Garbada
		2	Devgadh Bariya Prant	Devgadh bariya	Devgadh Bariya
		3	Limkheda Prant	Limkheda	Limkheda, Dhanpur
		4	Zalod Prant	Zalod	Zalod, Fatepura
8	Dang	1	Ahwa Prant	Ahwa	Ahwa
9	Gandhinagar	1	Gandhinagar Prant	Gandhinagar	Gandhinagar, Dehgam
		2	Kalol Prant	Kalol	Kalol, Mansa

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Sr. No.	Name of District	Name of Prant Office		Head quarter	Aarea
10	Jamnagar	1	Jamnagar(City) Prant	Jamnagar (City)	Jamnagar City
		2	Jamnagar(Rural) Prant	Jamnagar (Rural)	Jamnagar Rural, Kalawad
		3	Khambhaliya Prant	Khambhaliya	Khambhaliya, Bhanvad
		4	Lalpur Prant	Lalpur	Lalpur, Jamjodhpur
		5	Dwarka Prant	Dwarka	Dwarka, Kalyanpur
		6	Dhrol Prant	Dhrol	Dhrol, Jodiya
11	Junagadh	1	Junagadh Prant	Junagadh	Junagadh, Vanthli, Manavadar
		2	Veraval Prant	Veraval	Veraval, Talala, Sutrapada
		3	Keshod Prant	Keshod	Keshod, Mangrol, Manavadar
		4	Una Prant	Una	Kodinar, Una
		5	Mendarada Prant	Mendarada	Mendarada, Maliya Hatina
		6	Visavadar Prant	Visavadar	Visavadar
12	Kutch	1	Bhuj Prant	Bhuj	Bhuj
		2	Nakhatrana Prant	Nakhatrana	Nakhatrana, Lakhpat
		3	Anjar Prant	Anjar	Anjar, Gandhidham
		4	Mundra Prant	Mundra	Mandvi, Mundra
		5	Bhachau Prant	Bhachau	Bhachau, Rapar
		6	Abadsa Prant	Naliya	Abdasa
13	Kheda	1	Nadiyad Prant	Nadiyad	Nadiyad, Mahudha
		2	Kheda Prant	Kheda	Kheda, Matar, Mahmdavad
		3	Kapadwanj Prant	Kapadwanj	Kapadwanj, Kathlal
		4	Balasinor Prant	Balasinor	Balasinor, Virpur, Thasra
14	Mehsana	1	Mehsana Prant	Mehsana	Mehsana, Unjha
		2	Visnagar Prant	Visnagar	Visnagar, Vijapur
		3	Kadi Prant	Kadi	Kadi, Becharaji
		4	Kheralu Prant	Kheralu	Kheralu, Vadnagar, Satlasana
15	Narmada	1	Rajpipla Prant	Rajpipla	Nandod, Tilakwada
		2	Dediyapada Prant	Dediyapada	Dediyapada, Sagbara
16	Navsari	1	Navsari Prant	Navsari	Navsari city, Navsari Rural, Jalalpor
		2	Chikhali Prant	Chikhali	Chikhali, Gandevi, Vansada
17	Patan	1	Patan Prant	Patan	Patan, Chanasma
		2	Radhanpur Prant	Radhanpur	Radhanpur, Santalpur
		3	Sami Prant	Sami	Harij, Sami
		4	Siddhpur Prant	Siddhpur	Siddhpur
18	Porbandar	1	Porbandar Prant	Porbandar	Porbandar
		2	Kutiyana Prant	Kutiyana	Kutiyana, Ranavav
19	Panchmahals	1	Godhra Prant	Godhra	Godhra, Kalol, Morva (Hadaf)
		2	Lunawada Prant	Lunavada	Lunawada City
		3	Halol Prant	Halol	Halol, Jambughoda, Ghoghamba
		4	Santrampur Prant	Santrampur	Santrampur, Khanpur, Kadana
20	Rajkot	1	Rajkot City Prant	Rajkot (City)	Rajkot (City), Rajkot Taluko, Kotada Sangani
		2	Rajkot Rural Prant	Rajkot (Rural)	Lodhika, Padadhari
		3	Gondal Prant	Gondal	Gondal, Jetpur
		4	Vankaner Prant	Vankaner	Vankaner
		5	Morbi Prant	Morbi	Morbi, Tankara, Maliyamiyana

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Sr. No.	Name of District	Name of Prant Office		Head quarter	Aarea
		6	Dhoraji Prant	Dhoraji Prant	Dhoraji, Upleta, Jamkandorana
		7	Jasdan Prant	Jasdan	Jasdan
21	Sabarkantha	1	Himatnagar Prant	Himatnagar	Himatnagar, Bhiloda
		2	Modasa Prant	Modasa	Modasa, Malpur, Meghraj
		3	Idar Prant	Idar	Idar, Vadali
		4	Prantij Prant	Prantij	Prantij, Talod
		5	Bay ad Prant	Bayad	Bayad, Dhansura
		6	Khedbrahma Prant	Khedbrahma	Khedbrahma, Vijaynagar
22	Surat	1	Surat City Prant	Surat	Surat City
		2	Olpad Prant	Surat	Olpad, Choryasi
		3	Bardoli Prant	Bardoli	Bardoli, Mahuva
		4	Mandvi Prant	Mandvi	Mangrol, Mandvi, Umarpada
		5	Kamrej Prant	Kamrej	Kamrej, Palsana
23	Surendranagar	1	Vadhvan Prant	Vadhvan	Vadhvan, Lakhtar
		2	Limbadi Prant	Limbadi	Limbadi, Sayla, Chuda
		3	Dhrangadhra Prant	Dhrangadhra	Dhrangadhra, Halvad
		4	Chotila Prant	Chotila	Chotila, Muli
		5	Patdi Prant	Patdi	Patdi
24	Valsad	1	Valsad Prant	Valsad	Valsad, Dharampur
		2	Pardi Prant	Pardi	Pardi,Umargam, Kaparada
25	Vadodara	1	Vadodara City Prant	Vadodara (City)	Vadodara (City)
		2	Vadodara Rural Prant	Vadodara (Rural)	Vadodara(Rural), Padra
		3	Dabhoi Prant	Dabhoi	Dabhoi, Sankheda, Nasvadi
		4	Chhota Udepur Prant	Chhota Udepur	Chhota Udepur, Pavi Jetpur, Kvant
		5	Savli Prant	Savli	Savli, Vaghodiya
		6	Karjan Prant	Karjan	Karjan, Sinor
26	Tapi	1	Vyara Prant	Vyara	Valod, Vyara, Songadh
		2	Nizar Prant	Nizar	Nizar, Uchchhal

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AGRICULTURE AND CO-OPERATION DEPARTMENT

Notification

Sachivalaya, Gandhinagar 7th April, 2011.

CONSTITUTION OF INDIA

NO GHKH/18/MKM/102007/ 1010/Z.- In exercise of the Powers conferred by the proviso to article 309 of the Constitution of India, the Governor of Gujarat hereby make the following rules further to amend the Department Examination for Gazetted Officers of the Department of Fisheries Examination Rules, 1971, namely :-

1. These rules may be called the Department Examination for Gazetted Officers of the Department of the Fisheries Examination Rules, ((iii)) Amendment) Rules, 2011, namely :-

2. In the Department Examination for Gazetted Officers of the Department of the Fisheries Examination Rules, 1971, (hereinafter referred to as "the said rules"), in rules 1 sub rule (ii) and proviso there under shall be deleted.

3. In the said rules, in rule 3, the following shall be substituted, namely-"The Syllabus of the Examination shall as follows :-

Paper -1 : Service Matters (100 Marks)

(Duration 3 hours)

A Gujarat Civil Service Rules, 2002.

(1) The Gujarat Civil Services (General conditions of Service) Rules, 2002;

(2) The Gujarat Civil Services (Pay) Rules, 2002;

(3) The Gujarat Civil Services (Additional to Pay) Rules, 2002;

(4) The Gujarat Civil Services (Joining time, Foreign Service, and Removal) Rules, 2002;

(5) The Gujarat Civil Services (Pension) Rules, 2002;

(6) The Gujarat Civil Services (Occupation of Government Residential Accommodation) Rules, 2002;

(7) The Gujarat Civil Services (Leave) Rules, 2002 and .

(8) The Gujarat Civil Services (Travelling Allowance) Rules, 2002;

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B. The Gujarat Financial Rules, 1971 Chapter 1 to 12 Rules 1 to 197

C. The Bombay Contingent Expenditure Rules, 1959.

1.	Section-12 Special Rules for the Public Works Department	Rules 46 to 51.
2.	Section-19 Stationary and Rubber Stamps,	(Item No. 2, 4, 5). Rules 75 to 77.
3.	Section-25 Clothing (Item No. 7 to 12	Rules 104 to 139.
4.	Section-32 Arms and Equipments	Rules 166.
5.	Section-33 Epidemic Charges	Rules 167.

D. The Gujarat Budget Manual Book -I (Except the following)

1. Chapter: 3 Preparation of departmental estimates and presentation,
2. Chapter: 7 Estimates of transactions in United Kingdom and Other countries,
3. Chapter: 18 Estimates for central (agency) subjects,

(4) Gujarat Budget Manual Book - II, Appendix -4,

List of Major, Minor and Subordinate Heads of Accounts,

(5) Appendix: 5 List of estimating and controlling officers of Gujarat,

(6) Gujarat Budget Manual Book-I, Appendix-K (S) Statement of Accounts of Central Government and other Government,

(7) Gujarat Budget Manual Book-I, Appendix -L, (8) Central Agency Subjects,

E. An Introduction of Indian Government's Accounts and Audit 1963.

Chepter-1	The purpose of Accounts and Audit.	Rules 1 to 9
Chepter-2	Government System of Accounts and Audit and Commercial System.	Rules 10 to 29
Chepter-8	The working of treasury.	Rules 108 to 137
Chepter-13	Audits and receipts.	Rules 236 to 248
Chepter-14	Audit of Expenditure.	Rules 249 to 256
Chepter-15	Audit of Sanction.	Rules 257 to 267
Chepter-27	Contingent expenditure.	Rules 469 to 485

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Paper -2 : 100 Marks (Duration 3 hours)

(1) The Gujarat Civil Services (Conduct, Discipline, and Appeal) Rules, 1971.

(2) The Constitution of India, Article-202 to 206. 266 to 267.

(3) Five Years Plan Scheme under the Fisheries Department of State of Gujarat.

(4) The Gujarat Civil Services (Joining time, Foreign Service, and Removal) Rules, 2002.

(5) The Gujarat Civil Services (Pension) Rules, 2002.

Paper -3 : 100 Marks (Duration 3 hours)

(1) Gujarat Co-operative Societies Act, 1961

(2) Central State Purchasing Organization Rules and Regulations.

(3) Important Licensing Policy.

(4) The Gujarat Fisheries Act, 2002.

(5) Techo Economic Survey of the Gujarat State.

4. In the said rules 4 the following shall be substituted, namely :-

The Standard for passing departmental examination shall be fifty percent of the total marks assigned in each paper, The subject paper shall be allowed to be answered with the help of books, provided that with book means original book of the subject having bare Act and / of rules without any commentaries or case law and includes manuals issued under the Act published by the GOvernment.

5. In said rules, in rule 6, for the wards, "the Gujarat Public Service Commission" the words, "The Gujarat Fisheries Department" shall be substituted.

By order and in the name of the Governor of Gujarat,

H. M. PRAJAPATI,
Under Secretary to Government.

Government Central Press , Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

WOMEN AND CHILD DEVELOPMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 7th April, 2011

THE COMMISSION FOR CHILD RIGHTS ACT-2005

No.GS/3/2011/MHY/102010/2195 .- In exercise of the power conferred by section 17 of the The commission for Protection of Child Rights Act-2005 (4th of 2006) the Government of Gujarat hereby allots the functions of State level Commission for Protection of Child Rights Act-2005 to Gujarat State Women Commission, Gandhinagar.

In addition the State Women Commission has to implement the provision of the section 31 of Right to Education Act-2009.

By order and in the name of the Governor of Gujarat.

DARPANA DHIMMAR,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

FINANCE DEPARTMENT

Notification

Sachivalaya, Gandhinagar 28th April, 2011.

CONSTITUTION OF INDIA

NO (GN-10) VVKI-1203-1017-(PART-II)-TH-3 :- In exercise of the powers conferred by the proviso to article 309 of the Constitution of India, the Governor of Gujarat hereby make the following rules, further to amend the Assistant Commissioner Commercial Tax, Class-I, Recruitment Rules, 2008, namely :-

1. These rules may be called the Assistant Commissioner Commercial Tax, Class-I, Recruitment (Amendment) Rules, 2011.

2. In the Assistant Commissioner Commercial Tax, Class-I, Recruitment Rules, 2008, in rule 4, in clause (b), in sub-clause (iii), the brackets and words "(Finance)" shall be deleted.

By order and in the name of the Governor of Gujarat,

K. M. ADHVARYU,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

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FINANCE DEPARTMENT

Notification

Sachivalaya, Gandhinagar 29th April, 2011.

CONSTITUTION OF INDIA

NO (GN-12)-PGR-102009-O-487-P:.- In exercise of the Powers conferred by the provision to article 309 of the Constitution of India, the Governor of Gujarat hereby make the following rules further to amend the Gujarat Civil Services (Pension) Rules, 2002, namely :-

1. These rules may be called the Gujarat Civil Services (Pension) (Amendment) Rules, 2011.

2. In the Gujarat Civil Services (Pension) Rules, 2002, in rule 145 in sub-rules (2) in clause (ii), for the words **"Fifteen Thousand Rupees" the words, "Fifty Thousand Rupees"** shall be substituted.

By order and in the name of the Governor of Gujarat,

SHAILJA PATEL,
Deputy Secretary to Government.

Government Central Press , Gandhinagar.

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PART IV-A

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નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨૮મી એપ્રિલ, ૨૦૧૧.

ભારતનું સંવિધાન.

ક્રમાંક : (જીએન-૧૦)-વીવીકે-૧૨૦૩-૧૦૧૭(પાર્ટ-૨)-ઠ-૩ :- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ, ગુજરાતના રાજ્યપાલ, આથી સહાયક વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧, ભરતી નિયમો, ૨૦૦૮ વધુ સુધારવા નીચેના નિયમો કરે છે :-

૧. આ નિયમો સહાયક વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧, ભરતી (સુધારા) નિયમો, ૨૦૧૧ કહેવાશે.

૨. સહાયક વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧, ભરતી નિયમો, ૨૦૦૮માં, નિયમ ૪માં, ખંડ (ખ)માં, પેટા-ખંડ (૩)માં, "(ફાઈનાન્સ)" એ કૌંસ અને શબ્દ કમી કરવા.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે. એમ. અધ્વર્યુ,
સરકારના નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LABOUR AND EMPLOYMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 9th May, 2011.

BUILDING AND OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT, 1996.

No. **GHR/2011/5/CWA/2004/637/M.3**.---In exercise of the powers conferred under rule 36 of the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules, 2003, the Government of Gujarat hereby supersedes the Notification of even number dated 11-7-2008 and re-constitutes the Gujarat Building and Other Construction Worker's Welfare Board, for the purpose of the Building and Other Construction Workers (Regulation of employment and Conditions of Service) Act, 1996, as under :-

1.	Addl. Chief Secretary, Labour and Employment Department	Chairperson
2.	Secretary, Health & Family Welfare Department	Member
3.	Secretary, Roads & Buildings Department	Member
4.	Secretary, Narmada, Water Resources, Water Supply & Kalpsar Department	Member
5.	Secretary, Finance Department	Member
6.	The Director, Industrial Safety & Health, Gujarat State, Ahmedabad	Member
7.	The Secretary, Gujarat Building & Other Construction Workers' Welfare Board Ahmedabad.	Member Secretary
8.	Representatives of the employers of the building and construction workers.	
	1. Shri Jakshaybhai Shah Savvy Infrastructure Pvt. Ltd., Shapath, 4th Floor, S.G. Highway, Ahmedabad.	Member
	2. Shri Tarunbhai Raval 101, Nirman Complex, Majura Gate Ring Road, Surat.	Member

	3. Shri Mukeshbhai M. Sheth Sheth Builders (Raj) Pvt. Ltd., 104, Trade Centre, Sardar Nagar Main Road, Rajkot.	Member
	4. Shri Vipulbhai Thakkar 17, Saptgiri Shop, Opp. Taj Residency, Akota Main Road, Vadodara-20.	Member
	5. Shri Apurva G. Shah Sheth Brothers Reality Pvt. Ltd., 159, Madhav Darshan, Vaghwadi Road, Bhavnagar.	Member
9.	Five representatives of the Building and Construction Workers and from among N.G.O.s working in the interest of such workers and representative of women workers.	Member
	1. Shri Tushar M. Vyas, 180/A. Suvidha Townswhip, Subhashnagar Apartment Road, Bhavnagar-364 001.	Member
	2. Kum. Varshaben C. Talajiya 24/D, Satyadev, B/h. Rammantra Madir, Kalvi bid, Bhavnagar.	Member (Women representative)
	3. Shri Husainbhai Solanki 19/20, Leelaba Nagar, Behind Om Tadkeshwar Mahadev Temple, Sayaji Park, Ajwa Road, Vadodara.	Member
	4. Shri Navinbhai Shah Gandrapavada, Chhaya Bajaar, Junagadh.	Member
	5. Shri Ghanshyambhai Tiwari Bhartiya Mazdoor Sangh, Opp. Mangal Park Petrol Pump, Gita Mandir Road, Ahmedabad	Member

By order and in the name of the Governor of Gujarat,

RAMAN MAHERIYA,
Secretary to the Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

PORTS & TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 16th May, 2011.

MOTOR VEHICLES ACT, 1988

No.PT/2011/27/MVA/102006/4295/KH: Whereas the Reciprocal Transport Agreement between the Government of Gujarat and the Government of Madhya Pradesh is in force since 3rd April, 1975.

And whereas the Government of Gujarat and the Government of Madhya Pradesh having received several representations for introduction of new services connecting Gujarat and Madhya Pradesh and vice-versa and proposes to enter into revised Reciprocal Transport Agreement, superseding the previous Reciprocal Transport Agreement, a draft of which is hereby published as required by sub-section (5) of section 88 of the Motor Vehicles Act, 1988 (59 of 1988) (hereinafter referred to as "the said Act") for the information of all persons likely to be affected thereby and notice is hereby given that the representations in connection with the said proposals may be submitted by any of the persons, associations or authorities who have a right under the said subsection (5) to make such representations to the Additional Chief Secretary, Ports & Transport Department, Block NO-2, second floor Sachivalaya, Gandhinagar within 30 days from the date of publication of this draft agreement in official gazette.

2. A representation if any, in connection which may be received by the Additional Chief Secretary, Ports & Transport Department, block No.2,Seconed Floor, Sachivlaya, Gandhinagar from any person in respect to the aforesaid proposal before the aforesaid date will be considered by him in his office.

DRAFT AGREEMENT

RECIPROCAL TRANSPORT AGREEMENT BETWEEN THE GOVERNMENT OF GUJARAT AND THE GOVERNMENT OF MADHYAPRADESH.

This agreement is made and entered into on this Twenty ninth day of September, Two Thousand Ten between The Governor of Gujarat through Additional Chief Secretary, Ports and Transport department, Sachivalaya, Gandhinagar , (hereinafter referred to as "Government of Gujarat") which expression shall include his successors in office of the one part and the Governor of Madhya Pradesh through Secretary Transport Department, (hereinafter referred to as The Government of Madhya Pradesh') which expression shall include his successors in office of the second part:

WHEREAS in view of the rapid economic development of the country and the contiguity of the State of Gujarat and State of Madhya Pradesh it was considered expedient to encourage the long distance Inter-State Transport Passengers and goods between the said two States and to regulate Co-ordination and control their operation, the said parties executed a Reciprocal Agreement, which has been in force since 3rd April, 1975.

AND WHEREAS, the conditions aforesaid are still continued the parties hereto by mutual agreement have agreed to rescind the existing agreement.

Now THEREFORE, It is agreed by and between the above parties as follows:

THAT this Reciprocal Transport Agreement shall be enforced from the----------, 2011 and shall be valid till such time as new agreement between the two States is arrived at or reviewed of the existing one is rescind by mutual consent.

As from the coming into force of this agreement all previous bilateral agreement in the matter of road transport between the State of Gujarat and the State of Madhya Pradesh shall stand superseded.

1. TAXATION.

1.1. Single Point Taxation.

There shall be single point motor vehicle tax in the reciprocating State in respect of,

(a) Stage Carriages covered by substantive permits or temporary permits issued during the pendency of renewals of substantive permits under section 87 (1) (d) of the Motor Vehicles Act, 1988, (herein after referred as the 'Act') within the agreed route and countersigned by other State.

(b) Goods Carriages plying on substantive permits or temporary permits issued during the pendency of renewal of substantive permits under section 87 (1) (d) of the Act countersigned by other State.

EXPLANATION: For the purposes of this agreement;

(1) The words "Single Point Motor Vehicles Tax", means,-

i. In the case of Stage Carriage of the State of Madhya Pradesh, payment of the passenger tax of State of Gujarat shall be payable in advance on 70% load factor of seating capacity and Motor Vehicles Tax in the State of Gujarat,

ii. In the case of Stage Carriage of the State of Gujarat, payment of the Motor Vehicle Tax (Road Tax) of Madhya Pradesh at concessional rate applicable to the stage carriage of other State plying under a reciprocal agreement as provided in the Madhya Pradesh Motoryan Karadhan Adhiniyam, 1991.

iii. In the case of Goods Carriage belonging to either State, payment of the Motor Vehicle Tax in advance fixed for the vehicles plying under Reciprocal Transport Agreement by the Reciprocating State by the notification in the official Gazette.

(2) The words "Double Point Tax Basis" in respect of a motor vehicle means the liability of payment of all the taxes including Motor Vehicle Tax in both the States,

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(c) All types of motor vehicles of Home State not covered by any of sub-clauses (a) and (b) above, while operating in the other State, shall be liable to pay all the taxes leviable in the reciprocating State.

1.2. Exemption.

All types of motor vehicles exclusively owned by and used for the purpose of Government of one State other than those used for commercial purposes, shall be exempted from payment of all the taxes leviable in the reciprocating State.

2. MODE OF PAYMENT OF TAXES.

(a) The permit issuing authority shall ensure that, before issuing any substantial or temporary or special permit the all taxes of the Reciprocating State shall be paid in advance in the account of reciprocating State in the bank authorized by that State in this regard.

(b) Copies of all temporary permits and special permits together with Demand Draft drawn on the Bank and other relevant information shall immediately be sent to the Commissioner of Transport of both the States along with Demand Drafts at monthly intervals in the following Performa,-

Sr. No	Vehicle Owners Name & address	Permit No, & Vehicle No.	Gross Vehicle Weight of the vehicle or seating capacity of vehicle.	Validity of the permit. From	To	Bank Draft No, & Amount.,
1	2	3	4	5	6	7

3. STAGE CARRIAGE SERVICE.

The following general principles are agree to :

(a) The inter-state routes for operation of stage carriage as agreed upon on single point Motor Vehicles Tax shall be as shown in the Appendix-'A'.

(b) The total service distance shall, as far as possible be equally distributed between the two states so as to maintain parity.

(c) The number of trips allocated for each State on inter State route in Appendix 'A', shall always mean the shortest direct route, connecting to the terminals lying in the two States through via mentioned and any discrepancy discovered later in the mileage/kms shown in the said Appendix shall promptly be corrected through correspondence between the two State Transport Authority and shall not be treated as modification of the agreement.

(d) Any extension of a portion of an inter State route included in the Appendix 'A' which lies exclusively in one State may be made by the transport authority of that State in respect of services run by operators of that state without prior consultation with the Transport Authority of the other State and the fact intimated to the State Transport Authority of the other State.

(e) Wherein the old reciprocity the route is agreed upon but in the subsequent reciprocity it has been modified by giving extensions the route agreed in the old reciprocity shall be treated as agreed route in revised reciprocity till permits for the extension is granted by the Permit Granting Authority.

(f) The initial time table shall be fixed by the Permit Granting Authority on a purely temporary basis to be valid for a maximum period of four months and shall be countersigned as such, to enable immediate operation of the service. During this period the countersigning authority

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shall in consultation with the Permit Granting Authority finalize the time table. While fixing the timings the stage carriage of the Home State will be given preference for starting ahead of the bus belonging to the reciprocating state and there shall be sufficient gap in the timings of long distance Inter State Services on the route.

(g) The maximum fare and freight chargeable shall be as prescribed by the respective State Government for the operation of routes lying within the territory of each State. The form of tickets issued in one state shall be deemed to be valid in the other State.

(h) For the purposes of the Motor Vehicle tax/passenger tax Act, and rules of the reciprocating state, the fleet owners of one State shall be recognized as fleet owners of the other State.

(i) Substantive permits or temporary permits in respect of stage carriage of each State shall be countersigned by the State Transport Authority of the reciprocating state on the recommendations of the State Transport Authority of the Home State. Permits on the route not included in Appendix-'A' may be countersigned by the reciprocating State on double point tax basis.

(j) No permits for stage carriage shall be granted or countersigned other than that of State Transport Undertaking or State Government nominees of either State on nationalized route or part thereof by transport authority of reciprocating State,

(k) Both the State Transport Undertaking can operate any route by any vehicle like express, semi luxury, luxury, AC coach, Volvo type coach, Sleeper coach or any other vehicle of their fleets in Stage Carriage services.

(1) All the previous substantial stage carriage permits, for routes mentioned in Annexure-A. which are countersigned by either State, before coming in force of this Agreement shall remain in force till the validity of that permit,

(m) No other vehicles, except authorized under this Agreement shall ply on the inter state routes.

4. GOODS CARRIAGE .

The following general principles are agree to :

(a) It is agreed that the permits for a total 400 (four hundred) Goods Carriages belonging to each State shall be countersigned by the State Transport Authority of the reciprocating State on recommendations of the State/Regional Transport Authority concerned of the Home State on Single point tax basis. Such countersignature shall be granted by each state for all National and State Highways of the reciprocating State with a deviation of thirty Km. on either side of the National and State Highways.

(b) The goods carriages operating under counter-signature shall not be used for picking up and setting down of goods between any two points lying exclusively within the territory of the reciprocating State, that is to say in such cases vehicles shall be prohibited from carrying on any business of transporting goods exclusively within the territory of the countersigning State and shall be subject to such conditions as the concerned transport authority may deem fit to impose under sections 79 and 84 of the Act, and rules made thereunder.

5. GENERAL CONCURRENCE FOR ISSUE OF TEMPORARY PERMITS.

In view of section 88 (7) of the Act, the following general principles are agree to :

5.1 GOODS CARRIAGE.

(a) Goods Carriage temporary permits as per need may be issued for a period not exceeding 30 days by either State in accordance with the provisions of section 87 except sub section (1) (d) of section 87 or section 87(2) of the Act, except on prohibited routes in the reciprocating State, without any restrictions on the number of trips and without countersignature of the transport authority of reciprocating State, on the double point tax basis,

(b) These permits shall be issued subject to the following conditions :-

(i) That no goods shall be picked up or set-down between any two points lying wholly within the jurisdiction of the reciprocating state i.e such vehicle shall be prohibited

from carrying on any business of transport exclusively within the territory of the other State,

(ii) That an operator shall abide by any other conditions which the transport authority of either State may deem fit to impose under section 79 of the Act.

5.2. **OTHER PUBLIC SERVICE VEHICLE AND PRIVATE SERVICE VEHICLE.**

(a) Temporary permits for Contract carriage motor cabs, contract carriage omnibuses and private service vehicles may be issued as per need by transport authority of one State for a specified route connecting the specified terminal in the reciprocating State without the requirement of countersignature by the transport-authority of the reciprocating State on double point tax basis.

(b) If due to some reason the validity of the permit issued by one State expires in the territory of other State, a fresh temporary permit shall be obtained from the transport authority within whose jurisdiction the vehicle happens to be at that time after the payment of necessary fees and taxes,

(c) The validity of such temporary permits, shall not exceed a period of thirty days. Motor Vehicle tax on such temporary permit payable to the other state shall be paid in advance through a Demand Draft,

(d) These temporary permits shall be subject to the following conditions:

(i) Such temporary permit shall be valid for a period of not exceeding thirty days in the reciprocating State,

(ii) Passengers in excess of the seating capacity specified in the registration certificate shall not be carried and no standing passengers shall be allowed,

(iii) The contract carriage (Omni bus) shall be hired by a single party and shall be used for a single return journey,

(iv) Such temporary permits shall clearly specify the date of the outward and then date of the return journey, in case a certain party engaging a contract carriage on a temporary permit wishes to change the date of the return journey subsequent to the grant of the permit, it shall obtain permission in writing to that effect from the transport authority within whose jurisdiction the contract carriage happens to be at that time,

(v) The vehicle shall not be parked on any bus stand used by stage carriages and shall not operate from such bus stand,

(vi) The permit holder shall not operate the vehicle as a stage carriage.

6. SPECIAL PERMITS.

There shall be no restriction on the number of special permits to be issued under section 88(8) of the Act, by the transport authorities of either State. Such permits shall be valid for period of not exceeding thirty days in the reciprocating State and shall be issued on double point tax basis.

7. CORRIDOR ROUTE.

In view of the geographical position of the two States of Madhya Pradesh and Gujarat same routes having their starting point and terminal point in one State have to pass through a small portion of the territory of the other State as prescribed in proviso to sub section (1) of the section 88 of the Act. For purpose of motors vehicle tax shall be treated at par with permits which are duly countersigned and shall be allowed on single point tax basis. Where, however, the corridor distance exceeds sixteen kilometers, such permits shall be countersigned as per agreement. The Transport Authority granting permit shall also assist the recovery of taxes of reciprocating State in respect of such corridor in all possible manners.

8. GENERAL.

(i) The reciprocating State shall accord recognition to tax token registration, conductor's licenses, public service authorizations, certificates of fitness, etc. in respect of vehicles plying or to be plied on inter State routes in accordance with this agreement.

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(ii) All permits issued and countersigned as per earlier agreement or under any other arrangement agreed upon between both the Governments shall be deemed to be permits issued and countersigned under and in terms of this agreement,

(iii) The number of permits and inter State routes agreed upon in respect of stage carriages, goods carriages, contract carriages and temporary permits in accordance with this agreement may be reviewed periodically at the instance of either State.

(iv) The buses of Gujarat shall operate from the bus stands of Madhav^ Pradesh State and the buses of the Madhya Pradesh State operate from the bus stands of the Gujarat State as the case maybe,

(iv) This agreement shall be brought into force with effect from and shall remain in force until it is rescinded by mutual consent on three month's notice on either side.

IN WITNESS WHEREOF THE Governor of Gujarat has caused the Additional Chief Secretary to the Government of Gujarat, Ports and Transport Department to hereto set his hand and affix his official seal for and on his behalf and the Governor of Madhya Pradesh has caused Secretary to the Government of Madhya Pradesh, Transport Department to set his hand and affix his official seal for and on his behalf the day and year here in above written.

APPENDIX-A

ALLOCATION OF INTERSTATE ROUTS BTWEEN GUJARAT AND MADHYA PRADESH

	Route		Route Lenth		Single Trips		Service Kms. In		Permits	
Sr.	Route	M.P.	Guj.	TOTAL	M.P	Guj.	M.P	Guj.	M.P.	Guj.
No.							for Guj.	for M.P		
1	Ahmedabad - Badvani Via Dahod,Kukshi	128.00	245.00	373.00	0	1	128.00	0.00	0	1
2	Ahmedabad - Indor Via Dahod.Dhar	175.00	245.00	420.00	5	8	1400.00	1225.00	5	8
3	Ahmedabad - Khargoan Via Pavagadh, C'Udaipur, Alirajpur	187.00	292.00	479.00	1	1	187.00	292.00	1	1
4	Ahmedabad - Omkareshwar Via Dahod,Dhar	250.00	245.00	495.00	0	2	500.00	0.00	0	2
5	Ahmedabad - Ujjan Via Dahod,Dhar,Indore	231.00	245.00	476.00	1	1	231.00	245.00	1	1
6	Alirajpur - Ahmedabad Via C'Udaipur	19.00	260.00	279.00	2	0	0.00	520.00	1	0
7	Anand - Ujjain Via Dahod.Dhar.Indore	231.00	183.00	414.00	0	2	462.00	0.00	0	2
8	Badvani - Ahmedabad Via Alirajpur	128.00	243.00	371.00	1	0	0.00	243.00	1	0
9	Badvani - Baroda Via Alirajpur	93.00	153.00	246.00	2	0	0.00	306.00	1	0
10	Badvani - Baroda Via Alirajpur,Dabhoi	93.00	156.00	249.00	2	0	0.00	312.00	1	0
11	Badvani - Dahod Via Kukshi.Alirajpur	126.00	26.00	152.00	2	0	0.00	52.00	1	0
12	Badvani - Kukshi - Dahod Via BaghJobat	98.00	26.00	124.00	2	0	0.00	52.00	1	0
13	Baroda - Indore Via Dahod.Dhar	175.00	176.00	351.00	2	4	700.00	352.00	2	4
14	Chhotaudaipur - Alirajpur Via Chandpur	19.00	29.00	48.00	16	6	114.00	464.00	4	3
15	Dahod - Alirajpur Via Sejavada Bhabhra	50.00	26.00	76.00	6	8	400.00	156.00	3	4
16	Dahod - Indore Via Dhar	175.00	26.00	201.00	0	2	350.00	0.00	0	1
17	Dahod - Jhabua Via Pitol	19.00	26.00	45.00	0	12	228.00	0.00	0.00	6
18	Dahod - Para Via Jhabua,	38.00	26.00	64.00	0	4	152.00	0.00	0.00	2
19	Dahod - Ranapur Via PitoUhabua	37.00	26.00	63.00	0	8	296.00	0.00	0.00	4
20	Himatnagar - indore Via Dahod. Dhar	175.00	237.00	412.00	0	2	350.00	0.00	0	1
21	Khargoan - Baroda Via Badvani, Alirajpur,C'Udaipur	187.00	153.00	340.00	0	0	0.00	306.00	2	0
22	Khargoan - Sendhva - Surat(Udhna) Via Khctiya,Nandurbar	123.00	107.00	356.00	2	0	0.00	214.00	2	0
23	Kukshi - Dahod Via Nanpur.Alirajpur	98.00	26.00	124.00	4	0	0.00	104.00	2	0
24	Kukshi - Dahod Via Nanpur.Khattali. Bhabhra	94.00	26.00	124.00	2	0	0.00	52.00	1	0
25	Nadiad - Indor Via Dahod,Dhar	175.00	185.00	360.00	0	2	350.00	0.00	0	2
26	Surat - Alirajpur Via KawanLChhatkala	37.00	223.00	260.00	4	2	74.00	892.00	2	1

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	Route		Route Lenth		Single Trips		Service Kms. In		Permits	
Sr. No.	Route	M.P.	Guj.	TOTAL	M.P	Guj.	M.P for Guj.	Guj. for M.P	M.P.	Guj.
27	Surat - Burhanpur Via Navapur,Dhulia,Sirpur.Bijasan	11.00	107.00	412.00	0	2	22.00	0.00	0	2
28	Udaigarh - Jhabua - Dahod Via Pitol	54.00	26.00	80.00	2	0	0.00	52.00	1	0
29	Udhna - Indor Via Navapur.Sirpur.Sendhva	169.00	107.00	276.00	2	2	338.00	214.00	2	2
30	Ujjain - Baroda Via Alirajpur,C' Udaipur	295.00	153.00	448.00	2	0	0.00	306,00	2	0
	TOTAL	2235.00	2628.00	4863.00	69	51	6282.00	6359.00	36	35

Sd/- Sd/-

ADITIONAL CHIEF SECRETARY TO THE GOVERNMENT OF GUJARAT PORTS AND TRANSPORT DEPARTMENT.

SECRETARY TO THE GOVERNMENT OF MADHYAPRADESH TRANSPORT DEPARTMENT.

Witness :

(1) Sd/-
K M Patel
Joint Director
Office of Commissioner of Transport
Gandhinagar.Gujarat

(2) Sd/-
S.S. Chandravat
Divisional Manager
MPRTC, Bhopal
Madhya Pradesh

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Government
Ports and Transport Department.

Government Central Press, Gandhinagar.

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PART IV-A

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FOREST & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 11th May, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No. GVN-2011/(10)/JJM-2011-S.F.3.F.–In exercise of the powers conferred by the section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its application to the State of Gujarat, (hereinafter referred to as "The said Act".) the Government of Gujarat hereby :-

1. (a) Declares that it has been decided to constitute the land in the village of **Chhadavavadar** in **Dhoraje** Taluka of **Rajkot** District specified in the schedule appended hereto, as **"RESERVED FORESTS"** and,

 (b) Appoints the Forest Settlement Officer, **Junagadh** (hereinafter referred to as **"The Forest Settlement Officer"** to be the Officer for the purpose of clause (c) of Sub-section(1) of Section-4 and,

2. Appoints the Collector, **Rajkot** District at **Rajkot** to hear the appeals from any orders passed by the said Forests Settlement Officer under Section 11, 12, 15 and 16 of the said Act.

SCHEDULE

Taluka : Dhoraje **District : Rajkot**

Sr. No.	Name of the Village	Survey No.	Area H. R. Sq.m.	Boundaries
1	Chhadavavadar	40	4.03.68	**North :** Bhadar River. **East :** Village Boundary of Bhola **South :** S. No. 41/1, Plot No. 2/3 & pot 2/1. **West :**. Road.
		Total	**4.03.68**	

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to Government.

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વન અને પર્યાવરણ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૧૧મી મે, ૨૦૧૧.

સને ૧૯૨૭ના ભારતની જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ અન્વયે.

ક્રમાંક : ગવન-૨૦૧૧-(૧૦)-જજમ-૨૦૧૦-એસ.એફ-૩-એફ.— ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ ના ૧૬માં) અધિનિયમ જેનો આમાં હવે પછી "ઉક્ત અધિનિયમ" તરીકે ઉલ્લેખ કર્યો છે તેની કલમો (૪) અને (૧૭)ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર, આથી...

(૧) (અ) જાહેર કરે છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ **રાજકોટ** જિલ્લાના **ધોરાજી** તાલુકાના **મોજે. છાડવાવદર** ગામની જમીનને **"અનામત જંગલ"** તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે, અને...

(બ) જંગલ નિયામક અધિકારી (ફોરેસ્ટ સેટલમેન્ટ ઓફિસર) જૂનાગઢ ને જેનો આમાં હવે પછી ઉક્ત 'ફોરેસ્ટ સેટલમેન્ટ ઓફિસર' તરીકે ઉલ્લેખ કર્યો છે તેને કલમ-૪ની પેટા કલમ (૧) ની કલમ-(ક)ના હેતુઓ સારૂ અધિકારી તરીકે નિયુક્ત કરવામાં આવે છે.

(૨) ઉક્ત અધિનિયમની કલમો ૧૧, ૧૨, ૧૫ અને ૧૬ અન્વયે ઉક્ત ફોરેસ્ટ ઓફિસરે પસાર કરેલ કોઈપણ આદેશો પર અપીલ સાંભળવા **રાજકોટ** જિલ્લાના કલેક્ટરશ્રીને નિયુક્ત કરવામાં આવે છે.

અનુસૂચિ

તાલુકો : ધોરાજી **જિલ્લો : રાજકોટ**

અ. નં.	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે.આર.ચો.મી.	વિસ્તાર
૧.	છાડવાવદર	૪૦	૪.૦૩.૬૮	ઉત્તર : ભાદર નદી. પૂર્વ : ભોળા ગામનો સિમાડો. દક્ષિણ : સ.નં.૪૧/૧, પોત નં. ૨/૩ તથા ૨/૧ પશ્ચિમ : રસ્તો.
		કુલ	૪.૦૩.૬૮	

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,
સરકારના ઉપસચિવ.

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PART IV-A

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HOME DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 17th May, 2011.

CONSTITUTION OF SPECIAL INVESTIGATION TEAM FOR INVESTIGATION IN C. R. NO. 8/2004

No: GG/31/2011/SB-I/LAO/10/2010/10854:- Whereas the Hon'ble High Court of Gujarat in its order dated - 12/5/2011 in Criminal Misc. Application No: 15981/2010 in Criminal Misc. Application No: 9832/2010 in Special Criminal Application No: 1850 / 2009 has directed the State Government to appoint Dr. Satyapal Singh, IPS (MH: 80) in place of Shri Karnail Singh IPS, ex. Joint Commissioner of Police (Crime), New Delhi as the Chairman of the new Special Investigation Team (SIT), which was constituted earlier vide this department's notification No: GG/77/SB-I/LAO/10/2010/10584 dated: 16/11/2010.

2. Now therefore, the State Government has decided to appoint Dr. Satyapal Singh, IPS (MH: 80) as the Chairman of the Said Special Investigation Team (SIT) as directed by the Hon'ble High Court. The constitution of the Special Investigation Team (SIT) is now as follows as directed by Hon'ble High Court in its order dated. 12/5/2011.

1.	Dr. Satyapal Singh, IPS, Home Department, State of Maharastra, Mumbai.	Chairman
2.	Shri Mohan Jha, IPS, Joint Commissoner of Police (Crime), Ahmedabad City, Ahmedabad.	Member
3.	Shri Satish Verma, IPS, Joint Commissoner of Police (Traffic), Ahmedabad City, Ahmedabad.	Member

3. The SIT shall furnish its report pertaining to C.R.No.8/2004 registered with DCB Police Station, Ahmedabad to the Hon'ble Court on or before 23/6/2011 in a sealed cover.

4. The other terms and conditions will be the same as per the notification No: GG/77 /SB-I/LAO/10/2010/10584 dated. 16/11/2010.

5. The state officers shall give all assistance to the SIT as per its requirement alongwith staff and necessary infrastructure.

By order and in the name of the Governor of Gujarat,

D.R.PATEL,
Under Secretary (L&O).

Government Central Press, Gandhinagar.

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PART IV-A

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LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 18th May, 2011.

EVENING COURTS RULES, 2006.

No. GK/13/2011/CCA/102006/191/D.- Whereas, the Government has published the scheme of Evening Courts under Government notification, Legal Department No. GK-43-CCA-102006-191-D, dated the 2nd November, 2006;

AND Whereas, the said scheme is in force up to 31st March, 2011.

AND Whereas, the Government has decided to extend the said scheme up to the 31st March, 2012.

Now, therefore, in pursuant of sub-rule (2) of rule 1 of the Evening Courts Rules, 2006 and in consultation with the High Court of Gujarat , the Government of Gujarat hereby amends the Evening Courts Rules, 2006, as follows namely :-

1. These rules may be called the Evening Courts (Amendment) Rules, 2011.

2. In the Evening Courts Rules, 2006, in rule 1, in sub-rule (2) for the figures and words "31st March, 2011", the figures and words **"31st March, 2012"** shall be substituted.

By order and in the name of the Governor of Gujarat,

M. J. PARASHAR,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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FINANCE DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 23rd May 2011

CONSTITUTION OF INDIA

No. (GN-16)/VVK/122008/240/TH-3:-In exercise of the Powers Conferred by the proviso to article 309 of the Constitution of India, the Governor of Gujarat hereby makes the following rules further to amend the Gujarat Commercial Tax Inspector, Class-III, (Departmental Examination) Rules, 2009, namely :-

1. These Rules may be called the Gujarat Commercial Tax Inspector, Class-III, (Departmental Examination) (Amendment) Rules, 2011.

2. In the Gujarat Commercial Tax Inspector, Class-III, (Departmental Examination) Rules, 2009, after-4, the following rule shall be inserted, namely :-

"4A. Notwithstanding anything contained in these rules, where a Clerk or Typist or Clerk cum Typist who is not promoted to the post of Senior Clerk; or a Senior Clerk who has not completed three yers service as a senior Clerk and is entitled to get the second Higher Pay Scale of the post of the Commercial Tax Inspector, Class-III, in such case, he shall also be allowed to appear in the Departmental Examination for promotion to the post of the Commercial, Tax Inspector, Class-III".

By order and in the name of the Governor of Gujarat,

K. M. ADHVARYU
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 2nd June, 2011.

Commissions of Inquiry Act, 1952.

No. GK/14/2011/COI/102002/797/A.— WHEREAS the Government has, under Government Notification, Legal Department No. GK/07/2002-COI/102002/797-D, dated the 6th March, 2002, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the incident of setting on fire some coaches of the Sabarmati Express train near Godhra Railway Station on 27th February, 2002 and subsequent incidents of violence in the State;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 5th June, 2002 as provided in the aforesaid Notification of 06/03/02 and thereafter within the time limit extended till 30th June, 2011 as provided in the different subsequent Notifications;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the State Government.

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 31st December, 2011;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No. GK/07/2002-COI/102002/797/D, dated the 6th March, 2002, as follows, namely :-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 30th June, 2011" the words, figures and letters "on or before the 31st December, 2011" shall be substituted.

By order and in the name of the Governor of Gujarat,

K. M. LALA,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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LABOUR AND EMPLOYMENT DEPARTMENT

CORRIGENDUM

Sachivalaya, Gandhinagar, 3rd June, 2011.

BUILDING & OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT, 1996.

No. GHR/2011/60/CWA/2004/637/M(3).- In exercise of the powers conferred under rule 36 of the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules, 2003, the Government of Gujarat has re-constituted the Gujarat Building and Other Construction Workers' Welfare Board, for the purpose of the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996, Act, vide notification No. GHR-2011-51-CWA-2004-637-M(3), dated 9/5/2011.

Now, in the said notification, the name of Member as a representative of the building and construction workers from among NGOs, which was mentioned as "Shri Navinbhai Shah", is hereby corrected as the name **"Shri Navnitbhai S. Shah".**

By order and in the name of the Governor of Gujarat,

RAMAN MAHERIYA,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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બંદરો અને વાહન વ્યવહાર વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨૩મી જૂન, ૨૦૧૧.

માર્ગ વાહન વ્યવહાર કોર્પોરેશન અધિનિયમ-૧૯૫૦

ક્રમાંક : જીબી-પીટી-૨૮-એસટીસી-૩૭૯૪-૧૨૭૩-ઘ.— માર્ગ વાહન વ્યવહાર કોર્પોરેશન અધિનિયમ, ૧૯૫૦ ની કલમ-૧૭ અને ગુજરાત રાજ્ય માર્ગ વાહન વ્યવહાર નિગમ કોર્પોરેશનના નિયમો, ૧૯૭૧ના નિયમ ૩૨(૧) અન્વયે મળેલ સત્તાની રૂએ આથી જાહેરનામા સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ બાબતો ઉપર ગુજરાત રાજ્ય માર્ગ વાહન વ્યવહાર કોર્પોરેશનને સલાહ આપવાના હેતુ માટે તે કોર્પોરેશનના પરામર્શમાં કોર્પોરેશનને વખતોવખત સ્થાપિત કર્યા મુજબની ભાવનગર જિલ્લાની સલાહકાર સમિતિ તરીકે ઓળખાનારી સલાહકાર સમિતિની ગુજરાત સરકાર પુનઃ રચના કરે છે જેમાં નીચે જણાવેલ વ્યક્તિઓનો સમાવેશ થાય છે.

૧	વિભાગીય નિયામકશ્રી ગુજરાત રાજ્ય માર્ગ વાહન વ્યવહાર નિગમ, ભાવનગર વિભાગ,	અધ્યક્ષશ્રી
૨	પ્રમુખશ્રી, જિલ્લા પંચાયત ભાવનગર	સભ્ય
૩	જિલ્લા પોલીસ અધિક્ષકશ્રી, ભાવનગર	સભ્ય
૪	આસિસ્ટન્ટ કોમર્શિયલ મેનેજરશ્રી, વેસ્ટર્ન રેલ્વે, ભાવનગર	સભ્ય
૫	શ્રી ગોરધનભાઈ દેવરાજ જાસોલીયા, મુ.વેળાવદર, તા.જિ.ભાવનગર	સભ્ય
૬	શ્રી શરદભાઈ રાઘવભાઈ ગોરસીયા, મુ. માનવિલાસ, તા.ગારિયાધાર, જિ.ભાવનગર	સભ્ય
૭	શ્રી વાસુદેવસિંહ રઘુવીરસિંહ સરવૈયા, મુ. દેદરડા, તા.પાલીતાણા, જિ.ભાવનગર	સભ્ય
૮	શ્રી બાબુભાઈ પાંચાભાઈ જોળીયા, મુ., દુધાળા, નં.૧, તા.મહુવા, જિ.ભાવનગર	સભ્ય
૯	શ્રી મુકેશભાઈ લાલજીભાઈ બોરડા, મુ. લીંબડીયા, તા.ગઢડા, જિ.ભાવનગર	સભ્ય
૧૦	શ્રી વલ્લભભાઈ વરારામભાઈ રાઠોડ, મુ. ચોરવડલા, તા.શહોર, જિ.ભાવનગર	સભ્ય
૧૧	શ્રી બદરૂભાઈ હાથીભાઈ ખુમાણ, મુ. કુંભારા, તા.બોટાદ, જિ.ભાવનગર	સભ્ય
૧૨	શ્રી ભુપતસિંહ દિલુભા રાયજાદા, મુ. મોણપુર, તા.વલ્લભીપુર, જિ.ભાવનગર	સભ્ય

૧૩	શ્રી રસીકભાઈ રામજીભાઈ સવાણી, માઈ મંદિર શેરી, મુ.તા.ઉમરાળા, જિ.ભાવનગર	સભ્ય
૧૪	શ્રી દયાળભાઈ ઝવેરભાઈ ચુડાસમા, મુ. ત્રાંબક, વાયા ઉખરલા, તા.ઘોઘા, જિ.ભાવનગર	સભ્ય
૧૫	શ્રી નીતિનભાઈ મગનભાઈ પંડ્યા, ગાયત્રી મંદિર પાછળ, પ્લોટ નં.૩, તળાજા, જિ.ભાવનગર	સભ્ય
૧૬	શ્રી પ્રતાપભાઈ બાલુભાઈ સોલંકી, જનતા પ્લોટ, દાસારામનો ખાંચો, મુ.મહુવા, જિ.ભાવનગર	સભ્ય
૧૭	શ્રી મિલનભાઈ કનુભાઈ રાઠોડ, રાજવાડી મઢીની બાજુમાં, મુ.પાલીતાણા, જિ.ભાવનગર	સભ્ય
૧૮	શ્રી રામજીભાઈ હરજીભાઈ ગઢીયા, વિવેકાનંદ સોસાયટી, પાળીયાદરોડ, મુ.બોટાદ, જિ.ભાવનગર	સભ્ય
૧૯	વિભાગીય પરિવહન અધિકારી, ભાવનગર	સચિવ

૨. નીચે દર્શાવેલ અનુસૂચિમાં નિર્દિષ્ટ કરેલી બાબતો સંબંધમાં સમિતિએ આપવાની સલાહ અને કરવાની ભલામણોનું કાર્યક્ષેત્ર શક્ય હોય ત્યાં સુધી જે જિલ્લા માટે તે રચાઈ છે તે વિભાગ પૂરતું મર્યાદિત રહેશે.

અનુસૂચિ :

(ક) વિભાગમાં એસ.ટી. બસ સેવાઓનું સમયપત્રક

(ખ) મુસાફરી કરતી જનતાને અનુભવવી પડતી સામાન્ય તકલીફો.

(ગ) મુસાફરો વ્યાજબી દરે ખાનપાનની વેઈટીંગ શેડની, પ્રવાસ માટે પીવાનું પાણી પુરુ પાડવું વિગેરે સુવિધાઓનો પ્રબંધ.

(ઘ) મુસાફરી કરતી જનતા તરફથી મળેલી ફરિયાદોનો નિકાલ

(ચ) કોર્પોરેશનના બે અથવા વધારે વિભાગો વચ્ચે રેલ્વે રસ્તાની સેવાઓ અથવા વાહન વ્યવહારની સેવાઓ વચ્ચેના સંકલનને લગતી બાબતો અને

(છ) કોર્પોરેશન વખતોવખત સમિતિના ધ્યાન પર લાવે તેવી અન્ય બાબતો.

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

મનહર આર. ચૌધરી,
ઉપ સચિવ(વા.વ્ય.)
બંદરો અને વાહન વ્યવહાર વિભાગ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

બંદરો અને વાહન વ્યવહાર વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨૩મી જૂન, ૨૦૧૧.

માર્ગ વાહન વ્યવહાર કોર્પોરેશન અધિનિયમ-૧૯૫૦

ક્રમાંક : જીબી-પીટી-૨૯-એસટીસી-૩૦૨૦૦૮-૨૭૦૩-ઘ.— માર્ગ વાહન વ્યવહાર કોર્પોરેશન અધિનિયમ, ૧૯૫૦ ની કલમ-૧૭ અને ગુજરાત રાજ્ય માર્ગ વાહન વ્યવહાર નિગમ કોર્પોરેશનના નિયમો, ૧૯૭૧ના નિયમ ૩૨(૧) અન્વયે મળેલ સત્તાની રૂએ આથી જાહેરનામા સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ બાબતો ઉપર ગુજરાત રાજ્ય માર્ગ વાહન વ્યવહાર કોર્પોરેશનને સલાહ આપવાના હેતુ માટે તે કોર્પોરેશનના પરામર્શમાં કોર્પોરેશનને વખતોવખત સ્થાપિત કર્યા મુજબની જામનગર જિલ્લાની સલાહકાર સમિતિ તરીકે ઓળખાનારી સલાહકાર સમિતિની ગુજરાત સરકાર પુનઃ રચના કરે છે જેમાં નીચે જણાવેલ વ્યક્તિઓનો સમાવેશ થાય છે.

૧	વિભાગીય નિયામકશ્રી ગુજરાત રાજ્ય માર્ગ વાહન વ્યવહાર નિગમ, રાજકોટ વિભાગ,	અધ્યક્ષશ્રી
૨	પ્રમુખશ્રી, જિલ્લા પંચાયત જામનગર	સભ્ય
૩	પોલીસ અધિક્ષકશ્રી, જામનગર અથવા તેમના પ્રતિનિધિ	સભ્ય
૪	આસિસ્ટન્ટ કોમર્શિયલ મેનેજરશ્રી, વેસ્ટર્ન રેલ્વે, જામનગર	સભ્ય
૫	શ્રી યુવરાજસિંહ બનેસિંહ વાઢેર, મુ.આરંભડા, હરસિધ્ધિ સોસાયટી, તા. દ્વારકા, જિ. જામનગર	સભ્ય
૬	શ્રી ધરણાંતભાઈ ભુલાભાઈ ચાવડા, મુ. દ્વારકા, રિધ્ધિ સિધ્ધિ સોસાયટી, માજી મામલતદાર રાંકજા સાહેબની બાજુમાં, જિ. જામનગર	સભ્ય
૭	શ્રી ટપુભાઈ લીરાભાઈ સોનગરા, મુ. જામપર, તા.કલ્યાણપુર, જિ. જામનગર	સભ્ય
૮	શ્રી દિલિપભાઈ મનસુખભાઈ ધધડા, મુ., જામખંભાળીયા, રાજડા રોડ, મધુરમ ફેશનની બાજુની ગલી, જિ. જામનગર	સભ્ય
૯	શ્રી ભરતભાઈ જેશાભાઈ ચાવડા, મુ. ધરમપુર, શ્રીજી સોસાયટી, મહાપ્રભુજીની બેઠક રોડ, તા.ખંભાળીયા, જિ. જામનગર	સભ્ય

૧૦	શ્રી કિરીટભાઈ ખેતિયા, મુ. ધરમપુર, યોગેશ્વરનગર તા. જામખંભાળીયા, જિ. જામનગર	સભ્ય
૧૧	શ્રી રમેશભાઈ વાલજીભાઈ ધરસંડીયા, મુ. વાસજાળીયા, તા.જામજોધપુર, જિ. જામનગર	સભ્ય
૧૨	શ્રી જીતુભાઈ જી. જોષી, મુ. ભાણવડ, શ્રીનાથ ફાર્મસી, એસ.ટી.ડેપોની બાજુમાં, જિ. જામનગર	સભ્ય
૧૩	શ્રી સુરેન્દ્રસિંહ માનસંગ જાડેજા, મુ.ઝાંખર, તા.લાલપુર જિ. જામનગર	સભ્ય
૧૪	શ્રી કાંતિભાઈ કે. નંદા, મુ. નારણપુર, તા. જિ. જામનગર	સભ્ય
૧૫	શ્રી હસુભાઈ વોરા, મુ.કાલાવડ (શિતલા), દરબારગઢ શેરી, જિ. જામનગર	સભ્ય
૧૬	શ્રી રમેશભાઈ હરજીભાઈ નંદાસણા, મુ.હડીયાણા, તા.જોડીયા, જિ. જામનગર	સભ્ય
૧૭	શ્રી નીતિનભાઈ કોટેચા, મુ.જામરાવલ, હર્ષદ મંદિરની પાસે, તા.જામકલ્યાણપુર, જિ. જામનગર	સભ્ય
૧૮	શ્રી મુકુંદભાઈ ખોડાભાઈ સભાયા, મુ. જામનગર, પટેલ પાર્ક-૧, શેરી નં.૨, રણજીત સાગર રોડ, જિ. જામનગર	સભ્ય
૧૯	વિભાગીય ટ્રાફીક અધિકારી, એસ.ટી. વિભાગ રાજકોટ	સચિવ

૨. અગાઉનું જાહેરનામું આથી રદ કરવામાં આવે છે.

૩. આ જાહેરનામા સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલી બાબતો સંબંધમાં સમિતિએ આપવાની સલાહ અને કરવાની ભલામણોનું કાર્યક્ષેત્ર શક્ય હોય ત્યાં સુધી જે જિલ્લા માટે તે રચાઈ છે તે વિભાગ પૂરતું મર્યાદિત રહેશે.

અનુસૂચિ :

(ક) વિભાગમાં એસ.ટી. બસ સેવાઓનું સમયપત્રક

(ખ) મુસાફરી કરતી જનતાને અનુભવવી પડતી સામાન્ય તકલીફો.

(ગ) મુસાફરો વ્યાજબી દરે ખાનપાનની વેઈટીંગ શેડની, પ્રવાસ માટે પીવાનું પાણી પુરુ પાડવું વિગેરે સુવિધાઓનો પ્રબંધ.

(ઘ) મુસાફરી કરતી જનતા તરફથી મળેલી ફરિયાદોનો નિકાલ

(ચ) કોર્પોરેશનના બે અથવા વધારે વિભાગો વચ્ચે રેલ્વે રસ્તાની સેવાઓ અથવા વાહન વ્યવહારની સેવાઓ વચ્ચેના સંકલનને લગતી બાબતો અને

(છ) કોર્પોરેશન વખતોવખત સમિતિના ધ્યાન પર લાવે તેવી અન્ય બાબતો.

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

મનહર આર. ચૌધરી,
ઉપ સચિવ(વા.વ્ય.)
બંદરો અને વાહન વ્યવહાર વિભાગ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 23rd June, 2011.

CONSTITUTION OF INDIA.

NO.GK/ 17 /2011/JSR/1982/994/D,(Part-II) :- In exercise of the powers conferred by the proviso to article 309 read with Articles 233 and 234 of the Constitution of India, the Governor of Gujarat after consultation with the High Court of Gujarat hereby makes the following rules further to amend the Gujarat State Judicial Service Rules,2005 namely :-

1. Short Title and Commencement :

(1) These rules may be called the Gujarat State Judicial Service (Amendment) Rules, 2011.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Gujarat State Judicial Service Rules,2005 (herein after referred to as " the said rules") in rule 5,

(1) for sub-rule (1) the following shall be substituted namely :-

(1) Recruitment to the cadre of District Judge shall be as under.-

(i) 65 percent of posts shall be filled in by promotion from amongst the Senior Civil Judge on the basis of principle of merit-cum-seniority and passing a suitability test.

(ii) 10 percent of posts shall be filled in by promotion on the basis of merit through competitive examination from amongst Senior Civil Judges having note less than five years qualifying service:

Provided that when candidates are not available for 10% seats or are not able to qualify in the competitive examination, then the vacant posts shall be filled in by regular promotion in accordance with clause (i) above,

(iii) 25 percent of the posts shall be filled in by direct recruitment from amongst the eligible advocates on the basis of the written and viva voce test to be conducted by the High Court:

Provided that all the vacancies shall be filled up in the particular year and unfilled post shall not be carried forward.

(2) in sub- rule (3),

(i) in clause (i), for the figure and sign "50 %", the figure and sign "65 %", shall be substituted.

(ii) in clause (ii), for the figure and sign "25 %", the figure and sign "10 % ", shall be substituted.

3. In the said rules, for rule 8,the following shall be substituted namely :-

(1) the competitive examination for direct recruitment to the cadre of District Judge or Civil Judges shall consist of :-

(i) a written examination of not less than two hours of duration with 200 maximum marks; and

(ii) viva voce test of maximum 50 marks.

(2) the candidates who obtain fifty percent (50 %) or more marks in the competitive examination conducted for direct recruitment to the cadre of District Judge or Civil Judge, shall be eligible for being called for Viva-vice;

Provided that the candidates belonging to Schedule Castes and Schedule Tribes who obtain forty five percent (45 %) or above marks, in the written examination, conducted for direct recruitment to the cadre of Civil Judges, shall be eligible for being called for Viva-Voce.

(3) the minimum qualifying marks in the Viva-voce conducted for direct recruitment to the cadre of District Judge and Civil Judge, shall be forty percent (40 %) of marks.

(4) merit list shall be prepared on the basis of total marks obtained in the written examination and Viva-Voce Test (interview).

(5) the object of the Viva-Voce Test (interview) is to assess the suitability of the candidate for the cadre by judging the mental alertness, knowledge of law, clear and logical exposition, balance of judgment, skills, attitude, ethics, power of assimilation, power of communication, character and intellectual depth and the like, of the candidate.

(6) all necessary procedure not provided for in these rules for recruitment shall be decided by the High Court.

4. In the said rules, in rule 10,in sub-rule (2), in clause (iii),

(i) for the words "cumulative grade value", the words "aggregate marks" shall be substituted.

(ii) the words " assessed as provided in Schedule-A" shall be deleted.

5. In the said rules, in rule 19, in sub-rule (i),in clause (i), for the words "at Schedule-B", the words " in Schedule-A. However, the roster shall be applicable for the respective calendar year only." shall be substituted.

6. In the said rules, existing Schedule-A shall be deleted and for existing Schedule-B " the Schedule" attached to these rules shall be substituted.

By order and in the name of the Governor of Gujarat,.

M. J. PARASHAR,
Deputy Secretary to Government.

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SCHEDULE

[see rule 19(1)I)]

RULE RELATING TO ROSTER IN RESPECT OF THREE WAYS RECRUITMENT IN THE CADRE OF DISTRICT JDUGES.

"Without prejudice to the existing relative seniority of the member of the higher judicial service, all future appointment to the cadre of District Judges by promotions and direct recruitments in the quota prescribed under these Rules shall be made as per the roster prescribed. Accordingly, In a lot of hundred posts In the amalgamated cadre of District Judges -

I) Post falling at Sr. Nos. 1, 2, 5, 6, 7, 9, 10, 11, 14, 15, 17, 18, 19, 21, 22, 25, 26, 27, 29, 30, 31, 34,35,37,38,39,41,42,45,46,47,49,50,51,54,55,57,58,59,61,62,65,66,67,69,70,71,74,75,77,78,79, 81,82,85,86,87,89,90,91,94,95, 97,98,and 99 are required to be reserved and earmarked for promotes from amongst Senior Civil Judges on the principle of merit cum seniority.

ii) The post at Sr. No. 3,13,23,33,43,53,63,73,83 and 93 are required to be reserved for promotes from amongst the Senior Civil Judges on the basis of the criterion of merit only and,

iii) The Sr.No.4,8,12,16,20,24,28,32,36,40,44,48,52,56,60,64,68,72,76,80, 84, 88, 92, 96 and 100 are required to be filled in from direct recruits from amongst the eligible advocates as per the rules."

By order and in the name of the Governor of Gujarat,

M. J. PARASHAR,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar 21st June, 2011.

EMPLOYEES STATE INSURANCE ACT, 1948.

NO : GK-15-2011-ICE-102010-3957-D :.- In exercise of the powers conferred by section 74 of the the **EMPLOYEE'S STATE INSURANCE ACT, 1948 (XXXIV of 1948), and in** supersession of all Notifications issued in this behalf, the Government of Gujarat hereby :

a) Constitutes with effect from 22-06-2011 the Employees' Insurance Courts as specified in column (1) of the Schedule given below hereto for the local areas as specified against each of such Courts respectively in column (2) of the said Schedule; and

b) Directs that each of the Courts shall consist of the Judge as specified in column (3) of the said Schedule.

SCHEDULE

Employees' Insurance Court		Local Areas	Name of the Station
1		2	3
1.	Employee's Insurance Court, Ahmedabad.	1. Areas failing within the limits of the districts of Ahmedabad, Banaskantha, Sabarkantha, Mehsana, Gandhinagar and Patan.	Member, Industrial Court, Ahmedabad

Employees' Insurance Court		Local Areas	Name of the Station
1		2	3
2.	Employees' Insurance Court, Rajkot.	**2.** Areas failing within the limits of the districts of Rajkot, Jamnagar, Junagadh, Surrendranagar, Kutch and Porbandar	Member, Industrial Court, Rajkot.
3.	Employees' Insurance Court, Vadodara..	**3.** Areas failing within the limits of the districts of Vadodara, Panchmahal, Bharuch, Dahod and Narmada.	Member, Industrial Court, Vadodara.
4.	Employees' Insurance Court, Surat	**4.** Areas failing within the limits of the districts of Surat, Valsad, Navsari, Dangs and Tapi.	Member, Industrial Court, Surat.
5.	Employees' Insurance Court, Bhavnagar	**5.** Areas failing within the limits of the districts of Bhavnagar and Amreli.	Member, Industrial Court, Bhavnagar.
6.	Employees' Insurance Court, Nadiad	**6.** Areas failing within the limits of the districts of Kheda and Anand	Member, Industrial Court, Nadiad.

By order and in the name of the Governor of Gujarat,

M. J. PARASHAR,
Deputy Secretary to Government.

Government Central Press ,'Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

HEALTH AND FAMILY WELFARE DEPARTMENT,

Notification

Sachivalaya, Gandhinagar, 22nd June, 2011

PREVENTION OF FOOD ADULTERATION ACT, 1954

No.GY/12/PFA- 102010/2800 /JH- In exercise of the powers conferred by sub-section (1) of section 9 of the Prevention of Food Adulteration Act, 1954 (Act 37 of 1954), the Government of Gujarat hereby appoints the persons specified in column 2 of the Schedule appended hereto and having prescribed qualification specified in column 3, to be the Food Inspectors for the area specified against each of them as column 4 of the said schedule within which they shall exercise their powers.

SCHEDULE

Sr.No. (1)	Name of the Persons. (2)	Qualification (3)	Area (4)
1	Shri Patel Amitkumar Babubhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
2	Shri Solanki Harshadkumar Keshabhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
3	Shri Patel Pavankumar Sureshbhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
4	Shri Darji Ushma Rasiklal	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
5	Shri Suthar Prahladbhai Ruganathbhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
6	Shri Chavda Ajaykumar Jagdishbhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.

Sr.No. (1)	Name of the Persons. (2)	Qualification (3)	Area (4)
7	Prajapati Jalpaben Mukeshbhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
8	Prajapati Hiral Suryakant	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
9	Shri Prajapati Piyushkumar Dineshchandra	Bachelor of Veterinary Science & Animal Husbandry	Whole areas of the State of Gujarat
10	Shri Ode Sureshkumar Abhesinh	Bachelor of Science (Chemistry)	Whole areas of the State of Gujarat.
11	Shri Patel Tejendrakumar Hasmukhabhai	Bachelor of Science (Agriculture)	Whole areas of the State of Gujarat.
12	Patani Vidyaben Govindbhai	Bachelor of Science (Chemistry)	Whole areas of the State of Gujarat.
13	Shri Solanki Pareshkumar Haribhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
14	Shri Dave Himalkumar Maheshbhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
15	Shri Solanki Sandip Palabhai	Bachelor of Science (Chemistry)	Whole areas of the State of Gujarat.
16	Shri Chaudhari Vipulkumar Jesangbhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
17	Shri Rathod Ganshyamsinh Balvantsinh	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
18	Shri Prajapati Jignesh Jayantilal	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
19	Shri Solanki Dhaval Jayantilal	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
20	Shri Prajapati Baldevbhai Bhikhabhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
21	Shri Nagar Tushar Kirtibhai	Master of Science (Chemistry)	Whole area of the State of Gujarat.
22	Macwana Manishaben Motibhai	Master of Science (Agriculture)	Whole areas of the State of Gujarat.
23	Gosai Bhavanaben Cheharpuri	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
24	Shri Makwana Priteshkumar Manubhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
25	Shri Nimavat Chiragkumar Kanaiyalal	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
26	Shri Patel Gautam Kanjibhai	Bachelor of Science (Chemistry)	Whole areas of the State of Gujarat.
27	Bhayani Jalpaben Balkrushnabhai	Bachelor of Science (Chemistry)	Whole areas of the State of Gujarat.
28	Shri Chauhan Vikramsinh Ramabhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.

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Sr.No. (1)	Name of the Persons. (2)	Qualification (3)	Area (4)
29	Shri Prajapati Sureshkumar Kantilal	Bachelor of Pharmacy	Whole areas of the State of Gujarat.
30	Shri Rathwa Ashokbhai Bachubhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
31	Shri Bamaniya Dipakkumar Pratapsinh	Bachelor of Science (Chemistry)	Whole areas of the State of Gujarat.
32	Shri Sharma Bipinkumar Pravinbhai	Master of Science (Chemistry)	Whole areas of the State of Gujarat.
33	Mistry Nilpa Mahendrabhai	Bachelor of Science (Chemistry)	Whole areas of the State of Gujarat.
34	Shri Gamit Rakeshkumar Ganabhai	Bachelor of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation.
35	Shri Vasava Arvindbhai Jesingbhai	Bachelor of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
36	Shri Jani Maulikkumar Shaileshkumar	Master of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
37	Shri Pavar Rajeshwar Prahladbhai	Bachelor of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
38	Shri Agaja Ashokkumar Bhupendrabhai	Bachelor of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
39	Shri Vadher Paresh Navinchandra	Bachelor of Science (Chemistry)	Ahmedabad Municipal Corporation
40	Shri Desai Hasmukhlal Jagjivanram	Master of Science (Chemistry)	Whole areas of the Amreli Nagarpalika
41	Shri Udvani Anandkumar Dineshbhai	Bachelor of Science (Chemistry)	Whole areas of the Gandhidham Nagarpalika
35	Shri Vasava Arvindbhai Jesingbhai	Bachelor of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
36	Shri Jani Maulikkumar Shaileshkumar	Master of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
37	Shri Pavar Rajeshwar Prahladbhai	Bachelor of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
38	Shri Agaja Ashokkumar Bhupendrabhai	Bachelor of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
39	Shri Vadher Paresh Navinchandra	Bachelor of Science (Chemistry)	Ahmedabad Municipal Corporation
40	Shri Desai Hasmukhlal Jagjivanram	Master of Science (Chemistry)	Whole areas of the Amreli Nagarpalika
41	Shri Udvani Anandkumar Dineshbhai	Bachelor of Science (Chemistry)	Whole areas of the Gandhidham Nagarpalika
42	Shri Patel Manishkumar Bhavanbhai	Bachelor of Pharmacy	Whole areas of the Bhavnagar Municipal Corporation.
43	Shri Sheth Nayankumar Bhupendrabhai	Bachelor of Science (Chemistry)	Whole areas of the Valsad Nagarpalika

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Sr.No. (1)	Name of the Persons. (2)	Qualification (3)	Area (4)
44	Shri Moliya Himanshu Girishkumar	Bachelor of Science (Chemistry)	Whole areas of the Rajkot Municipal Corporation.
45	Shri Vaghela Chandrakant Desaibhai	Bachelor of Science (Chemistry)	Whole areas of the Rajkot Municipal Corporation.
46	Shri Rathod Ketan Mansukhbhai	Bachelor of Science (Chemistry)	Whole areas of the Rajkot Municipal Corporation.
47	Shri Sarvaiya Kaushik Jayshukhbhai	Bachelor of Science (Chemistry)	Whole areas of the Rajkot Municipal Corporation.
48	Shri Parmar Rajul Ramjibhai	Bachelor of Science (Chemistry)	Whole areas of the Rajkot Municipal Corporation.
49	Shri Patel Rohitkumar Dahyabhai	Bachelor of Science (Chemistry)	Whole areas of the Ahmedabad Municipal Corporation
50	Shri Mandviya Jayeshbhai Kantilal	Master of Science (Chemistry)	Whole areas of the Gandhinagar Municipal Corporation.

By order and in the name of the Governor of Gujarat,

MAHESH SONI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

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ગૃહ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨૧મી જુન, ૨૦૧૧.

ફોજદારી કાર્યરીતિ અધિનિયમ, ૧૯૭૩.

ક્રમાંક : જીજી-૨૦૧૧-૩૩-વિ-૨-ક્રમબ-૨૪૮૦-૨૭૫૧-ભાગ-૨, પાટણ સબ ડીવીઝનલ મેજીસ્ટ્રેટે ફોજદારી કાર્યરીતી અધિનિયમ, ૧૯૭૩ની કલમ-૧૪૪ હેઠળ કરેલા અને આ સાથેની અનુસૂચિમાં ફરી જણાવેલ તા. ૩૧-૩-૨૦૧૧ ના હુકમ ક્રમાંક : પીઓએલ-પ્રતિબંધ-વશી-૭૮૯/૧૧, જેનો આમાં હવે પછી સદરહુ હુકમ તરીકે ઉલ્લેખ કર્યો છે. તેમાં નિર્દિષ્ટ કરેલા વિસ્તારમાં હુલ્લડ અને બખેડો અટકાવવા માટે ગુજરાત સરકારે તેમ કરવું જરૂરી જણાય છે.

તેથી, હવે સદરહુ અધિનિયમની કલમ-૧૪૪ની પેટા-કલમ (૪)ના પરંતુકથી મળેલ સત્તાની રૂએ ગુજરાત સરકાર આથી આદેશ કરે છે કે, સને ૨૦૧૧ના જુલાઈ માસની ૧લી તારીખે સદરહુ હુકમ જેની મુદત આ જાહેરનામું ન હોત તો પૂરી થઈ ગઈ હોત તે સને-૨૦૧૧ ના જુલાઈ માસની પહેલી તારીખે અને તે તારીખથી વધુ છ મહિનાની મુદત અર્થાત તા. ૩૧-૧૨-૨૦૧૧ સુધી અમલમાં રહેશે.

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

રાહુલ ગુપ્તા,
નાયબ સચિવ.

અનુસૂચિ

ફોજદારી કાર્યરીતી અધિનિયમ-૧૯૭૪-૭૮ના એક્ટ-૨ની કલમ-૧૪૪ અન્વયે કાઢેલો હુકમ.

ક્રમાંક : પીઓએલ-પ્રતિબંધ-વશી-૭૮૯/૧૧.-સિધ્ધપુરમાં ઐતિહાસિક સ્થળ રૂદ્રમહાલય આવેલ છે. તેની બાજુમાં એક મસ્જિદ આવેલ છે. જેં જુમ્મા-મસ્જિદ તરીકે ઓળખાય છે. અને તે મિલકતો ભારત સરકારના પુરાતત્વખાતા ધ્વારા રક્ષિત ઈમારત તરીકે જાહેર કરાયેલ છે. અને તે ઈમારતોનો ઉપયોગ સારૂ હિન્દુ તથા મુસલમાનોની કોમો વચ્ચે સિધ્ધપુરમાં ઘણીવાર ભારે તંગ પરિસ્થિતિ પેદા થાય છે. અને તે હાલ પ્રવર્તે છે. આ બાબતે નામદાર ગુજરાત સરકારે અગાઉ પ્રતિબંધિત વિસ્તાર તરીકે જાહેરનામું બહાર પાડેલ છે. જે જાહેરનામાની મુદત પૂરી થાય છે. તેથી બંન્ને કોમો તરફથી રૂદ્રમહાલય અને જુમ્મા મસ્જિદમાં પૂજા કરવા અને નમાજ પઢવા જાય તેમ માનવાને કારણ છે. હાઈકોર્ટમાં કેસો ચાલે છે. તેનો નિકાલ હજુ આવેલ નથી બંન્ને કોમો વચ્ચે ફરીથી તંગદીલી ઉભી થવા સંભવ છે જેથી જાહેર સુલેહ શાંતિનો ભંગ થતો અટકાવવાનું ઈષ્ટ જણાય છે. અને તેમ થતું તાત્કાલિક અટકાવવા ઝડપી ઉપાય યોજવાનું ઈચ્છનીય છે.

તેથી, હું **ડૉ. ધવલ પટેલ**, સબ ડીવીઝનલ મેજીસ્ટ્રેટ, પાટણને મળેલ ખાસ સત્તાની રૂએ આથી હું ફરમાવું છું કે નીચે અનુસંધાનવાળા જણાવેલ મિલકતોમાં તારીખ : ૧-૪-૨૦૧૧ના રોજથી ૬૦ દિવસ સુધી તા. ૩૦-૬-૨૦૧૧ સુધી સદર મિલકતોમાં અગર તેની અંદર આવેલ કોઈપણ સ્થળે કોઈપણ રીતે ઉપયોગ કરવો નહી તેનો પ્રતિબંધ ફરમાવું છું.

મિલકતોના વિસ્તારની ચતુ:સીમા

પૂર્વ દિશા : ઘર નં. ૧-૧૦-૮૪ની પછીત નદીમાં જવાનો રસ્તો તથા ઘર નં. ૧-૧૦-૮૫નો કરો.

પશ્ચિમ દિશા : રૂદ્રમહાલય તથા મસ્જિદની હદથી રસ્તો દેસાઈના મહાડ તરફ જવાનો તથા ત્યાંથી વહોરવાડ તરફ જવાનો રસ્તો મુકી ઘર નં. ૧-૧૦-૪૩, ૧-૧૦-૪૪ તથા ૧-૧૦-૪૫ ની પછીત તથા બારણું.

ઉત્તર દિશા : રૂદ્રમહાલય તથા મહોલ્લામાં ઘર નં. ૧-૧૦-૭૨થી ૧-૧૦-૭૬ ના મકાનની પછીત તથા પશવાદળની પોળ તરફ જવાનો રસ્તો જે દેસાઈના માઢ તરફ જાય છે. તેની બીજી બાજુએ ઘર નં. ૧-૧૧-૯૫થી ૧-૧૧-૧૦૦ના મકાનોનો આગળનો ભાગ.

દક્ષિણ દિશા : જુની વહોરવાડ તથા દેસાઈના માઢ તરફ જવાનો રસ્તા ઓળંગી ઘર નં. ૧-૫-૫ તથા ૧-૫-૬ નો આગળનો ભાગ તથા બારણા તથા ત્યારબાદ રસ્તો મુકીને ઘર નં. ૧-૧૦-૪૭ ના મકાનનો કરાનો ભાગ.

સદરહુ હુકમનો ભંગ કરનાર ભારતના ફોજદારી અધિનિયમની કલમ-૧૮૮ મુજબની શિક્ષાને પાત્ર થશે. આ ગુનો કોગ્નીઝેબલ બિન-જામીન લાયક ગુનો છે. આ હુકમ જિલ્લા મેજી. શ્રી પાટણ, જિલ્લા પોલીસ વડાશ્રી, પાટણ તથા એક્ઝીક્યુટીવ મેજીસ્ટ્રેટશ્રી, સિધ્ધપુર અથવા આ અર્થે તેમને અધિકૃત કરેલા અધિકારીઓ પાસેથી પરમીટ ધરાવનાર વ્યકિતઓને લાગુ પડશે નહિ. અગર ફરજ ઉપર હાજર રહેનાર પુરાતત્વ ખાતાના તથા રાજ્ય સરકારના અધિકારીઓ તથા નોકરોને લાગુ પડશે નહિ.

આજ તા. ૩૧મી માર્ચ-૨૦૧૧ના રોજ મારી સહી તથા સીક્કો કરી આપેલ છે.

સીલ

ડૉ. ધવલ પટેલ,
સબ ડીવીઝનલ મેજીસ્ટ્રેટ,
પાટણ.

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

રાહુલ ગુપ્તા,
નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 29th June, 2011.

CONSUMER PROTECTION ACT, 1986.

No.GTH/2011/ 32 /CPA/102010/586495/D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),1 (A) and (2) of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby re- appoints Shri H. D. Chaglani, retired Addl. District Judge as the President of Consumer Disputes Redressal Forum, Rajkot (Main) with headquarter at Rajkot.

Shri H. D. Chaglani, shall hold his office from the date he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Rajkot (Main) up to the date 27.06.2014 or he attains the age of 65 years whichever is earlier

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL ,
Additional Secretary (I/C) to Govt.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 29th June, 2011.

CONSUMER PROTECTION ACT, 1986.

No.GTH/2011/33/CPA/102010/586495/D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),1 (A) and (2) of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby re-appoints Shri A. P. Trivedi, retired Addl. District Judge as the President of Consumer Disputes Redressal Forum, Rajkot (Addl.) with headquarter at Rajkot.

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Shri A. P. Trivedi, shall hold his office up to the date 28/4/2014 or he attains the age of 65 years whichever is earlier from the date he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Rajkot (Addl).

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL ,
Additional Secretary (I/C) to Govt.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 29th June, 2011.

CONSUMER PROTECTION ACT, 1986.

No.GTH/2011/34/CPA/102010/586495/D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),I (A) and (2) of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri P. O. Lad, Addl. District Judge, Bharuch on deputation from the date 28/5/2011 to 31/10/2011 and from the date 1/11/2011 to 25/7/2012 on re-appointment basis as the President of Consumer Disputes Redressal Forum, Vadodara (Main) with headquarter at Vadodara.

Shri P. O. Lad, shall hold his office as the President of the Consumer Disputes Redressal Forum, Vadodara (Main) up to the date 25/07/2012 or he attains the age of 65 years whichever is earlier.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL ,
Additional Secretary (I/C) to Govt.

Government Central Press, Gandhinagar.

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 29th June, 2011.

CONSUMER PROTECTION ACT, 1986.

No. : GTH/2011/35/CPA/102010/322293/D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),l (A) and (2) of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri V. B. Nirmal, retired Addl District Judge, Dahod as the President of Consumer Disputes Redressal Forum, Jamnagar with headquarter at Jamnagar.

Shri V. B. Nirmal shall hold his office for a period of five years from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Jamnagar or up to the age of 65 years whichever is earlier.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL ,
Additional Secretary (I/C) to Govt.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 29th June, 2011.

CONSUMER PROTECTION ACT, 1986.

No.GTH/2011/36/CPA/102010/322293/D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),l (A) and (2) of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri S. K. Pandya, retired Judge, as the President of Consumer Disputes Redressal Forum, Surendranagar with headquarter at Surendranagar.

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Shri S. K. Pandya, shall hold his office for a period of five years from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Surendranagar or up to the age of 65 years whichever is earlier.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL ,
Additional Secretary (I/C) to Govt.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 29th June, 2011.

CONSUMER PROTECTION ACT, 1986.

No.GTH/2011/37/CPA/102010/322293/D: In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a),1 (A) and (2) of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby appoints Shri A. N. Vakil retired Principal District Judge, as the President of Consumer Disputes Redressal Forum, Valsad with headquarter at Valsad.

Shri A. N. Vakil , shall hold his office for a period of five years from the date, he resumes the charge of his office as the President of the Consumer Disputes Redressal Forum, Valsad or up to the age of 65 years whichever is earlier.

Terms and conditions for the above appointment shall be decided by the State Government later on.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL ,
Additional Secretary (I/C) to Govt.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 29th June, 2011.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/38/CPA/102011/322293/D : Notification No.GTH/2011/20/CPA/102010/1049452/D dated 15th February, 2011 issued by the department is hereby stands cancelled.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL ,
Additional Secretary (I/C) to Govt.

Government Central Press, Gandhinagar.

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LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 30th June, 2011.

Commissions of Inquiry Act, 1952.

No. : GK/18/2011/COI/102009/205/A : WHEREAS the Government has, under Government Notification, Legal Department No. GK/11/2010-/COI/102009/205/A, dated the 8th July, 2009, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the matters mentioned in paragraph 2 of the said notification;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 30th November, 2009 as provided in the aforesaid Notification of 8th July, 2009, and thereafter within the time limit extended till 30th June, 2011, as provided in the different subsequent Notifications;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the State Government;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 31st August, 2011;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No.GK/11/2010-COI/102009/205/A, dated the 8thJuly, 2009, as follows, namely :-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 30th June, 2011" the words, figures and letters "on or before the 31st August, 2011" shall be substituted.

By order and in the name of the Governor of Gujarat,

K. M. LALA,

Deputy Secretary to Government.

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FINANCE DEPARTMENT,

Notification,

Sachivalaya, Gandhinagar, 28th June, 2011.

CONSTITUTION OF INDIA.

No. : (GN-20)/VVK/122009/1356/TH-3 :- In exercise of the powers conferred by the proviso to article 309 of the Constitution of India, the Governor of Gujarat hereby repeals the Registrar, (in the Office of the Gujarat Sales Tax Tribunal, Ahmedabad) Recruitment Rules, 1978 issued under Government Notification, Finance Department, No. G.N.-42-VVK-2075-1971(78)-2213-CHH, dated the 28th June, 1978.

Provided that such repeal shall not affect the things done or actions taken under the rules so repealed.

By order and in the name of the Governor of Gujarat,

K. M. ADHVARYU,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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HEALTH AND FAMILY WELFARE DEPARTMENT,

Notification,

Sachivalaya, Gandhinagar, 23rd June, 2011.

PRE-CONCEPTION AND PRE-NATAL DIAGNOSTIC TECHNIQUES (PROHIBITION OF SEX SELECTION) ACT, 1994.

No. : GP-11-PND-102011-819-B-1 :- In exercise of the power conferred by sub-section (2) of section 17 of the Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 (57 of 1994), the Government of Gujarat hereby amends the Government Notification, Health and Family Welfare Department, No. GP-25-PND-102006-1190-B.1, dated the 16th August, 2010, as follows, namely :-

in the Schedule appended to the said notification, for the entries at serial numbers 2 and 3, the following entries shall be substituted, namely .-

Sr. No.	Particulars of Members	Designation
2	Smt. U. D. Patel Director, Gender Resource Center, Polytechnic Compound, Ahmedabad	Member
3	Shri V. R. Raval Under Secretary to Government, Legal Department, Sachivalaya, Gandhinagar.	Member

By order and in the name of the Governor of Gujarat,

K. L. KHANT,

Under Secretary to Government.

Government Central Press, Gandhinagar.

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FOOD,CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

NOTIFICATION

SACHIVALAYA, GANDHINAGAR 2nd, July, 2011.

CONSUMER PROTECTION ACT. 1986

No.GTH/2011/39/CPA/102009/668890/D: In exercise of the powers conferred under clause (e) of sub- rule (5) of rule (3) of the Gujarat Consumer Protection Rules, 1988 Government of Gujarat hereby removes Ms Hema S. Shukla from the post of Member of District Consumer Disputes Redressel Forum, Junagadh with immediate effect.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL,
Additional Secretary (I/C) to Govt.

Government Central Press, Gandhinagar.

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FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 7th July, 2011.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/40/CPA/102010/783107/D.— In exercises of the powers conferred by section 10(2) of the Consumer Protection Act, 1986 the Government of Gujarat hereby accepts the resignation of Shri K. U. Chavda, Member of District Consumers Disputes Redressal Forum Gandhingagar with effect from dated 8/9/2010.

By order and in the name of the Governor of Gujarat,

Y. B. PATEL,
Additional Secretary (I.C.) to Government.

Government Central Press, Gandhinagar.

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Extra No. 67 REGISTERED No. G/GNR/2

सत्यमेव जयते

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LABOUR AND EMPLOYMENT DEPARTMENT,

Notification

Sachivalaya, Gandhinagar, 6th July, 2011

FACTORIES ACT, 1948.

No. : KHR-2011-90-FDE-102009-785806-M(1) :- In exercise of the powers conferred by sub-section (1) of section 8 of the Factories Act, 1948 (LXIII of 1948), the Government of Gujarat is pleased.

(1) to appoint Shri A. K. Jani, to be Chemical Inspector of Factories, on contract basis for the period of 11 months commencing from 16-7-2011, here after to work in the whole State of Gujarat ;

(2) to direct that he shall exercise all the powers conferred by the said Act and Rules made thereunder;

(3) to declare that the notice and returns prescribed under the said Act and Rules made thereunder shall be sent to Factory Inspection Office situated in the respective Districts.

(4) to specify the director, Induatrial Safety & Health, Gujarat State, Ahmedabad, as the authority to whom the Chemical Inspector shall be officially, subordinate.

By order and in the name of the Governor of Gujarat,

RAMAN MAHERIA,
Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 68 REGISTERED NO. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya Gandhinagar, 14th July, 2011.

MOTOR VEHICLES ACT, 1988

No.PT/2011/38/MVD/102011/1439/KH: In exercise of the powers conferred by sub-section (6) of section 41 of the Motor Vehicles Act, 1988 (59 of 1988) read with Government of India, Ministry of Surface Transport (Transport Wing) Notification No. 444 (E) dated, the 12th June, 1989, the Government of Gujarat hereby amends the Government Notification Ports, Transport and Fisheries Department No. G/B/89/119/MVR/1589/2424-(II)/7 dated, 28th June, 1989 as follows:-

In the table appended to the said notification the following entries shall be added at the end.

"Ahmedabad (East)	27"
"Surat-2	28"
"Vadodara-2	29"

By order and in the name of the Governor of Gujarat,

D. V. ACHARYA,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 69 REGISTERED No. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, : ૧૪મી ઓગસ્ટ, ૨૦૦૮.

ભારતનું સંવિધાન.

ક્રમાંક: જીએન-૩૮/વવક-૧૨૦૩-૧૦૧૭(પાર્ટ-૧)-૬-૩:- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને તારીખ૧૬મી જૂન, ૧૯૮૭નું સરકારી જાહેરનામું ક્રમાંક.જીએન/૪૩/વીવીકે/૧૨૮૪/૧૧૩૪/૭ ૨૬ કરીને, ગુજરાતના રાજ્યપાલ, આથી, વાણિજિયક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, સિનિયર કલાર્ક, વર્ગ-૩ની જગા ઉપર ભરતીનું નિયમન કરવા માટે જોગવાઈ કરવા નીચેના નિયમો કરે છે:-

૧. આ નિયમો, સિનિયર કલાર્ક, વર્ગ-૩,(વાણિજિયક વેરા કમિશનરની કચેરી) ભરતી નિયમો, ૨૦૦૮ કહેવાશે.

૨. વાણિજિયક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, સિનિયર કલાર્ક, વર્ગ-૩ ની જગા ઉપરની નિમણૂક,-

(૧) (ક) (૧) જેણે વાણિજિયક વેરા કમિશનરની કચેરીની તાબાની સેવામાં જુનિયર કલાર્ક, અથવા જુનિયર કલાર્ક-કમ-ટાઇપિસ્ટ અથવા ટાઇપિસ્ટ, વર્ગ-૩ના સંવર્ગમાં ઓછામાં ઓછા પાંચ વર્ષ સુધી કામ કર્યું હોય; અને

(૨) ઠરાવેલી ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરેલી હોય; અને

(૩) ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉતીર્ણ કરેલી હોય,

તેવી વ્યકિતઓમાંથી સિધ્ધ ગુણવત્તા અને કાર્યદક્ષતાવાળી વ્યકિતની બઢતીથી કરવી જોઈશે:

પરંતુ નિમણૂક આપનાર સત્તાધિકારીને એમ ખાતરી થાય કે ઉપર ખંડ(૧)માં નિર્દિષ્ટ કરેલો અનુભવ ધરાવતી વ્યકિત બઢતી માટે ઉપલબ્ય નથી અને તેનાથી ઓછી મુદતનો અનુભવ ધરાવતી વ્યકિતને બઢતી આપીને પણ જગા ભરવાનું જાહેર હિતમાં જરૂરી છે, તો તે , લેખિતમાં કારણોની નોંધ કરીને, ઉપર ખંડ(૧)માં નિર્દિષ્ટ કરેલી મુદતના બે તૃતીયાંશ કરતાં ઓછી નહિ તેટલી મુદતનો અનુભવ ધરાવતી વ્યકિતને બઢતી આપી શકશે,

અથવા

(ખ) (૧) વાણિજિયક વેરા કમિશનરની કચેરીની તાબાની સેવામાં જુનિયર કલાર્ક, અથવા જુનિયર કલાર્ક-કમ-ટાઇપિસ્ટ અથવા ટાઇપિસ્ટ, વર્ગ-૩ના સંવર્ગમાં ઓછામાં ઓછા પાંચ વર્ષ સુધી કામ કર્યું હોય; અને

(૨) ઠરાવેલી ખાતાકીય પરીક્ષા ઉતીર્ણ કરેલી હોય; અને

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(૩) ભારતમાં કેન્દ્રીય અથવા રાજય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત કરેલી કોઇ યુનિવર્સિટીઓ પૈકી કોઇ યુનિવર્સિટીમાંથી અથવા યુનિવર્સિટી ગ્રાન્ટસ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ તે તરીકે માન્ય કરેલી કોઇ બીજી શૈક્ષણિક સંસ્થામાંની અથવા યુનિવર્સિટી તરીકે ગણાતી યુનિવર્સિટીમાંની પદવી અથવા સરકારે માન્ય કરેલી તેને સમકક્ષ લાયકાત ધરાવતો હોય; અને

(૪) ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઇઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉતીર્ણ કરેલી હોય; અને

(૫) સરકારે ઠરાવેલા નિયમો અનુસાર ખાસ સ્પર્ધાત્મક પરીક્ષા ઉતીર્ણ કરેલી હોય,

તેવી વ્યકિતઓમાંથી, ખાસ સ્પર્ધાત્મક પરીક્ષાના આધારે, સિધ્ધ ગુણવત્તા અને કાર્યદક્ષતાવાળી વ્યકિતની બઢતી આપીને કરવી જોઇશે.

અથવા

(૨) સીધી પસંદગીથી કરવી જોઇશે.

૩.(ક) નિયમ ૨ના પેટા-નિયમો(૧) અને (૨) હેઠળ બઢતીથી અને સીધી પસંદગીથી કરવાની નિમણૂકો ૩:૧ના પ્રમાણમાં કરવી જોઇશે.

(ખ) નિયમ ૨ના પેટા-નિયમ (૨)ના ખંડો(ક) અને (ખ) હેઠળ બઢતીથી કરવાની નિમણૂકો ૨:૧ના પ્રમાણમાં કરવી જોઇશે.

૪. નિયમ ૨માં જણાવેલી જગા ઉપર સીધી પસંદગીથી નિમણૂકને પાત્ર થવા માટે ઉમેદવાર-

(ક) ૨૮ વર્ષથી વધુ ઉંમરનો હોવો જોઇશે નહિ;

(ખ) (૧)ભારતમાં કેન્દ્રીય અથવા રાજય અધિનિયમથી સ્થપાયેલી અથવા સંસ્થાપિત કોઇ યુનિવર્સિટીઓ પૈકી કોઇ યુનિવર્સિટીમાંથી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ તે તરીકે માન્ય કરવામાં આવેલ કોઇ બીજી શૈક્ષણિક સંસ્થા અથવા યુનિવર્સિટી તરીકે ગણાતી યુનિવર્સિટીમાંથી મેળવેલ બી.બી.એ.(નાણા) અથવા બી.કોમ. અથવા બી.એસ.. સી. (ગણિતશાસ્ત્ર અથવા આંકડાશાસ્ત્ર) અથવા બી.એ.(આંકડાશાસ્ત્ર અથવા અર્થશાસ્ત્ર અથવા ગણિતશાસ્ત્ર)ની પદવી ધરાવતો હોવો જોઇશે;

(૨) ગુજરાત મુલકી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭માં ઠરાવ્યા પ્રમાણે કોમ્પ્યુટરના ઉપયોગ અંગેની પાયાની જાણકારી ધરાવતો હોવો જોઇશે.

(ગ) ગુજરાતી અને/અથવા હિન્દીનું પૂરતું જ્ઞાન ધરાવતો હોવો જોઇશે.

૫. સીધી પસંદગીથી નીમાયેલા ઉમેદવારે એક વર્ષની મુદત સુધી અજમાયશ પર રહેવું પડશે.

૬. સીધી પસંદગીથી નીમાયેલા ઉમેદવારે, તેની અજમાયશની મુદત દરમિયાન, સરકારે ઠરાવેલા નિયમો અનુસાર પૂર્વ-સેવા તાલીમ લેવી પડશે અને તાલીમાંત પરીક્ષા પાસ કરવી પડશે.

૭. સીધી પસંદગીથી નીમાયેલા ઉમેદવારે, તેની અજમાયશની મુદત દરમિયાન, ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઇઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉતીર્ણ કરવી પડશે.

૮. પસંદ થયેલા ઉમેદવારે, સરકારે ઠરાવેલા નિયમો અનુસાર, ખાતાકીય પરીક્ષા અને હિન્દી અથવા ગુજરાતી અથવા તે બન્ને પરીક્ષા પાસ કરવાની રહેશે.

૯. સીધી પસંદગીથી અથવા બઢતીથી નીમાયેલા ઉમેદવારે, સરકાર ઠરાવે તેવી તાલીમ લેવી પડશે અને તેવી પરીક્ષા ઉતીર્ણ કરવી પડશે.

૧૦. પસંદ થયેલા ઉમેદવારે, સરકાર ઠરાવે તેવા નમૂનામાં, તેટલી રકમની અને તેટલી મુદત માટે જામીનગીરી અને જામીનખત પૂરા પાડવા જોઇશે.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે.એમ.અધ્વર્યુ,

સરકારના નાયબ સચિવ.

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નાણા વિભાગ
જાહેરનામું
સચિવાલય, ગાંધીનગર, : ૨૧મી ઓગસ્ટ, ૨૦૦૮.

ભારતનું સંવિધાન.

ક્રમાંકઃ જીએન-૩૯/ વવક- ૧૨૦૩ - ૧૦૧૭ (પાર્ટ - ૨) - ઠ -૩ઃ- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને તારીખઃ૨૪મી ઓકટોબર, ૧૯૬૯નું સરકારી જાહેરનામું ક્રમાંકઃજીએન/૫૯૫/વીવીકે/૨૦૬૯/૬૩૭૬/૧૩૦૧/ટી ૨૬ કરીને, ગુજરાતના રાજ્યપાલ, આથી, ગુજરાત વાણિજ્યિક વેરા સેવામાં, વાણિજ્યિક વેરા અધિકારી, વર્ગ ૨ની જગા ઉપર ભરતીનું નિયમન કરવા માટે જોગવાઈ કરવા નીચેના નિયમો કરે છેઃ-

૧. આ નિયમો વાણિજ્યિક વેરા અધિકારી, વર્ગ ૨, ભરતી નિયમો, ૨૦૦૮ કહેવાશે.

૨. ગુજરાત વાણિજ્યિક વેરા સેવામાં, વાણિજ્યિક વેરા અધિકારી, વર્ગ ૨ની જગા ઉપરની નિમણૂક,-

(૧) (ક) (૧) જેણે વાણિજ્યિક વેરા ખાતાની તાબાની સેવામાં, વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ ૩ના સંવર્ગમાં ઓછામાં ઓછું સાત વર્ષ કામ કર્યું હોય; અને

(૨) ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરેલી હોય; અને

(૩) ઠરાવેલી ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરેલી હોય

તેવી વ્યક્તિઓમાંથી સિદ્ધ ગુણવત્તા અને કાર્યદક્ષતાવાળી વ્યક્તિની બઢતીથી કરવી જોઈશેઃ

પરંતુ નિમણૂક આપનાર સત્તાધિકારીને એમ ખાતરી થાય કે ઉપર ખંડ (૧)માં નિર્દિષ્ટ કરેલો અનુભવ ધરાવતી વ્યક્તિ બઢતી માટે ઉપલભ્ય નથી અને તેનાથી ઓછી મુદતનો અનુભવ ધરાવતી વ્યક્તિને બઢતી આપીને પણ જગા ભરવાનું જાહેર હિતમાં જરૂરી છે, તો તે, કારણોની લેખિતમાં નોંધ કરીને, ઉપર ખંડ (૧)માં નિર્દિષ્ટ કરેલી મુદતના બે તૃતીયાંશ કરતાં ઓછી નહિ તેટલી મુદતનો અનુભવ ધરાવતી વ્યક્તિને બઢતી આપી શકશે, અથવા

(ખ) (૧) જેણે વાણિજ્યિક વેરા ખાતાની તાબાની સેવામાં, વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ ૩ના સંવર્ગમાં ઓછામાં ઓછું પાંચ વર્ષ કામ કર્યું હોય; અને

(૨) ઠરાવેલી ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરેલી હોય; અને

(૩) ભારતમાં કેન્દ્રીય અથવા રાજ્ય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓ પૈકી કોઈપણ યુનિવર્સિટીમાંથી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ યુનિવર્સિટી તરીકે ગણાતી અથવા તે તરીકે માન્ય થયેલી બીજી કોઈપણ શૈક્ષણિક સંસ્થામાંથી મેળવેલી પદવી ધરાવતો હોય; અથવા સરકારે માન્ય કરેલી તેને સમકક્ષ લાયકાત ધરાવતો હોય; અને

(૪) ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરેલી હોય; અને

(૫) સરકારે ઠરાવેલા નિયમો અનુસાર ખાસ સ્પર્ધાત્મક પરીક્ષા ઉત્તીર્ણ કરેલી હોય,

તેવી વ્યક્તિઓમાંથી, ગુજરાત જાહેર સેવા આયોગે યોજેલી ખાસ સ્પર્ધાત્મક પરીક્ષાના આધારે, સિદ્ધ ગુણવત્તા અને કાર્યદક્ષતાવાળી વ્યક્તિની બઢતીથી કરવી જોઈશે.

અથવા

(૨) આ હેતુ માટે યોજેલી સ્પર્ધાત્મક પરીક્ષાના પરિણામ ઉપરથી સીધી પસંદગીથી કરવી જોઈશે.

૩. (ક) નિયમ ૨ના પેટા-નિયમો (૧) અને (૨) હેઠળ, બઢતીથી અને સીધી પસંદગીથી કરવાની નિમણૂકો ૪:૧ના પ્રમાણમાં કરવામાં આવશે.

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(ખ) નિયમ ૨ના પેટા-નિયમ (૧)ના ખંડો (ક) અને (ખ) હેઠળ, બઢતીથી કરવાની નિમણૂકો ૩:૧ના પ્રમાણમાં કરવામાં આવશે.

૪. નિયમ ૨માં જણાવેલી જગા ઉપર આ હેતુ માટે યોજેલી સ્પર્ધાત્મક પરીક્ષાના પરિણામ ઉપરથી સીધી પસંદગીથી નિમણૂકને પાત્ર થવા માટે, ઉમેદવાર,-

(ક) ૩૦ વર્ષથી વધુ ઉંમરનો હોવો જોઈશે નહિ;

(ખ) (૧) ચાર્ટર્ડ એકાઉન્ટન્ટ અથવા કોસ્ટ એન્ડ વર્ક્સ એકાઉન્ટન્ટ અથવા કંપની સેક્રેટરીની લાયકાત ધરાવતો હોવો જોઈશે; અથવા

(૨) ભારતમાં કેન્દ્રીય અથવા રાજ્ય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓ પૈકીની કોઈપણ યુનિવર્સિટીમાંથી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ યુનિવર્સિટી તરીકે ગણાતી અથવા તે તરીકે માન્ય થયેલી બીજી કોઈપણ શૈક્ષણિક સંસ્થામાંથી મેળવેલી બીબીએ (ફાઈનાન્સ) અથવા બી.કોમ. અથવા બી.એસસી. (ગણિતશાસ્ત્ર) અથવા બી.એ. (આંકડાશાસ્ત્ર અથવા અર્થશાસ્ત્ર અથવા ગણિતશાસ્ત્ર) અથવા બી.એ.સી.ની દ્વિતીય વર્ગની પદવી ધરાવતો હોવો જોઈશે અથવા સરકારે માન્ય કરેલી તેને સમકક્ષ લાયકાત ધરાવતો હોવો જોઈશે;

(ગ) ગુજરાત મુલકી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭માં ઠરાવ્યા પ્રમાણે કોમ્પ્યુટરના ઉપયોગ અંગેની પાયાની જાણકારી ધરાવતો હોવો જોઈશે;

(ઘ) ગુજરાતી અને / અથવા હિન્દીનું પૂરતું જ્ઞાન ધરાવતો હોવો જોઈશે.

૫. સીધી પસંદગીથી નિમણૂક પામેલા ઉમેદવારે બે વર્ષની મુદત સુધી અજમાયશ ઉપર રહેવું જોઈશે.

૬. સીધી પસંદગીથી નિમણૂક પામેલા ઉમેદવારે, પોતાની અજમાયશની મુદત દરમિયાન, રાજપત્રિત અધિકારીઓના (નોકરી પૂર્વેની તાલીમ અને પરીક્ષા) અંગેના નિયમો, ૧૯૭૦ અનુસાર પૂર્વ-સેવા તાલીમ લેવી જોઈશે અને તાલીમાંત પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે.

૭. સીધી પસંદગીથી નિમણૂક પામેલા ઉમેદવારે, પોતાની અજમાયશની મુદત દરમિયાન, ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે.

૮. પસંદ થયેલા ઉમેદવારે સરકારે ઠરાવેલા નિયમો અનુસાર ખાતાકીય પરીક્ષા અને હિન્દી અથવા ગુજરાતી અથવા તે બન્ને પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે.

૯. સીધી પસંદગીથી અથવા બઢતીથી નિમણૂક પામેલા ઉમેદવારે સરકાર ઠરાવે તેવી તાલીમ લેવી જોઈશે અને તેવી પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે.

૧૦. સીધી પસંદગીથી નીમાયેલા ઉમેદવારે સરકાર ઠરાવે તેવા નમૂનામાં, તેટલી રકમની અને તેટલી મુદત માટે જામીનગીરી અને જામીનખત પૂરાં પાડવાં જોઈશે.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે. એમ. અધ્વર્યુ,
સરકારના નાયબ સચિવ.

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નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, : ૧૨મી સપ્ટેમ્બર, ૨૦૦૮.

ભારતનું સંવિધાન.

ક્રમાંકઃ જીએન-૪૦/વવક-૧૨૦૩-૧૦૧૭-ઠ-૩ઃ- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને આ અર્થે કરેલા તમામ નિયમો રદ કરીને, ગુજરાતના **રાજ્યપાલ, આથી, વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, વાણિજ્યિક વેરા** નિરીક્ષક, વર્ગ-૩ની જગા ઉપર ભરતીનું નિયમન કરવા માટેની જોગવાઈ કરવા માટે નીચેના નિયમો કરે છેઃ-

૧. આ નિયમો વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩ ભરતી નિયમો, ૨૦૦૮ કહેવાશે.

૨. વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩ ની જગા ઉપરની નિમણૂક,-

(ક) (ક) (૧) જેણે વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં સિનિયર કલાર્ક, વર્ગ-૩ના સંવર્ગમાં ઓછામાં ઓછા પાંચ વર્ષ સુધી કામ કર્યું હોય;

(૨) ગુજરાત મુલ્કી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરેલી હોય, અને

(૩) વાણિજ્યિક વેરા નિરીક્ષક વર્ગ-૩ની જગા પર બઢતી માટે ઠરાવેલી ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરેલી હોય;

તેવી વ્યકિતઓમાંથી સિધ્ધ ગુણવત્તા અને કાર્યદક્ષતાવાળી વ્યકિતની બઢતીથી કરવી જોઈશેઃ

પરંતુ નિમણૂક આપનાર સત્તાધિકારીને એમ ખાતરી થાય કે ઉપર ખંડ(૧)માં નિર્દિષ્ટ કરેલો અનુભવ ધરાવતી વ્યકિત બઢતી માટે ઉપલબ્ધ નથી અને તેનાથી ઓછી મુદતનો અનુભવ ધરાવતી વ્યકિતને બઢતી આપીને પણ જગા ભરવાનું જાહેર હિતમાં જરૂરી છે, તો તે , કારણોની લેખિતમાં નોંધ કરીને, ઉપર ખંડ(૧)માં નિર્દિષ્ટ કરેલી મુદતના બે તૃતીયાંશ કરતાં ઓછી નહિ તેટલી મુદતનો અનુભવ ધરાવતી વ્યકિતને બઢતી આપી શકશે;

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(ખ) (૧) વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં સિનિયર કલાર્ક, વર્ગ-૩ના સંવર્ગમાં ઓછામાં ઓછા પાંચ વર્ષ સુધી કામ કર્યું હોય; અને

(૨) ભારતમાં કેન્દ્રીય અથવા રાજય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓ અથવા સંસ્થાઓ પૈકીની કોઈપણ યુનિવર્સિટી અથવા સંસ્થામાંથી અથવા યુનિવર્સિટી ગ્રાન્ટસ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ તે તરીકે માન્ય કરેલી અથવા ડીમ્ડ યુનિવર્સિટી તરીકે જાહેર કરેલી બીજી કોઇ પણ શૈક્ષણિક સંસ્થામાંથી મેળવેલી પદવી ધરાવતો હોવો જોઈશે; અથવા સરકારે માન્ય કરેલી તેને સમકક્ષ લાયકાત ધરાવતો હોવો જોઈશે;

(૩) ગુજરાત મુલ્કી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરેલી હોય;

(૪) વાણિજ્યિક વેરા નિરીક્ષક વર્ગ-૩ની જગા પર બઢતી માટે ઠરાવેલી ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરેલી હોય;

(૫) સરકારે ઠરાવેલા નિયમો અનુસાર ખાસ સ્પર્ધાત્મક પરીક્ષા ઉત્તીર્ણ કરેલી હોય,

તેવી વ્યકિતઓમાંથી સિધ્ધ ગુણવત્તા અને કાર્યદક્ષતાવાળી વ્યકિતની ખાસ સ્પર્ધાત્મક પરીક્ષાના આધારે બઢતી આપીને કરવી જોઈશે.

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(ખ) ગુજરાત જાહેર સેવા આયોગ દ્વારા આ અર્થે લેવામાં આવેલી સ્પર્ધાત્મક પરીક્ષાના પરિણામના આધારે સીધી પસંદગીથી કરવી જોઈશે.

૩. નિયમ ૨-ક હેઠળ બઢતીથી, નિયમ ૨-ખ હેઠળ સીધી પસંદગીથી અને નિયમ ૨-ક(ખ) હેઠળ ખાસ સ્પર્ધાત્મક પરીક્ષાના આધારે બઢતીથી કરવાની નિમણૂકો ૧:૧:૧ના પ્રમાણમાં કરવી જોઈશે.

૪. નિયમ ૨માં જણાવેલ જગા ઉપર સીધી પસંદગીથી નિમણૂકને પાત્ર થવા માટે ઉમેદવાર-

(ક) ૨૦ વર્ષથી ઓછી અને ૨૮ વર્ષથી વધુ ઉંમરનો હોવો જોઈશે નહિ;

(ખ) ભારતમાં કેન્દ્રીય અથવા રાજય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓ પૈકીની કોઇ પણયુનિવર્સિટીમાંથી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ તે તરીકે માન્ય કરેલી અથવા ડીમ્ડ યુનિવર્સિટી તરીકે જાહેર કરેલી બીજી કોઈપણ શૈક્ષણિક સંસ્થામાંથી મેળવેલી બી.બી.એ.(નાણાં) અથવા બી.કૉમ. અથવા બી.સી.એ. (ગણિતશાસ્ત્ર અથવા આંકડાશાસ્ત્ર) અથવા બી.એ. (આંકડાશાસ્ત્ર અથવા અર્થશાસ્ત્ર અથવા ગણિતશાસ્ત્ર)ની પદવી ધરાવતો હોવો જોઈશે;

(ગ) ગુજરાત મુલ્કી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭માં ઠરાવ્યા પ્રમાણે કોમ્પ્યુટરના ઉપયોગ અંગેની પાયાની જાણકારી ધરાવતો હોવો જોઈશે.

(ઘ) ગુજરાતી અને/અથવા હિન્દીનું પૂરતું જ્ઞાન ધરાવતો હોવો જોઈશે.

૫. સીધી પસંદગીથી નિમણૂક પામેલ ઉમેદવારને એક વર્ષની મુદત સુધી અજમાયશ પર રહેવું જોઈશે.

૬. પસંદ થયેલા ઉમેદવારે, સરકારે ઠરાવેલા નિયમો અનુસાર, ખાતાકીય પરીક્ષા અને હિન્દી અથવા ગુજરાતી અથવા તે બન્ને પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે.

૭. સીધી પસંદગીથી નિમણૂક પામેલા ઉમેદવારે, પોતાની અજમાયશની મુદત દરમિયાન, સરકારે ઠરાવેલા નિયમો અનુસાર પૂર્વ-સેવા તાલીમ લેવી જોઈશે અને તાલીમાંત પરીક્ષા ઉત્તીર્ણ કરવી પડશે.

૮. સીધી પસંદગીથી નિમણૂક પામેલ ઉમેદવારે, પોતાની અજમાયશની મુદત દરમિયાન, ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરવી પડશે.

૯. સીધી પસંદગીથી અથવા બઢતીથી નિમણૂક પામેલ ઉમેદવારે સરકાર ઠરાવે તેવી તાલીમ લેવી જોઈશે અને તેવી પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે.

૧૦. પસંદ થયેલા ઉમેદવારે સરકાર ઠરાવે તેવા નમૂનામાં, તેટલી મુદત માટે અને તેટલી રકમની જામીનગીરી અને જામીનખત પૂરાં પાડવા જોઈશે.

ગુજરાતના રાજયપાલના હુકમથી અને તેમના નામે,

કે.એમ.અધ્વર્યુ,
સરકારના નાયબ સચિવ.

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નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, : ૧૨મી સપ્ટેમ્બર, ૨૦૦૮.

ભારતનું સંવિધાન.

ક્રમાંક: જીએન-૪૧/વવક-૧૨૦૩-૧૦૧૭-૬-૩ :- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને આ અર્થે કરેલા તમામ નિયમો રદ કરીને, ગુજરાતના રાજ્યપાલ, આથી, વાણિજ્યિક વેરા કમિશનરની કચેરીની સેવામાં, નાયબ વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧ની જગા ઉપર ભરતીનું નિયમન કરવા માટે જોગવાઈ કરવા નીચેના નિયમો કરે છે:-

૧. આ નિયમો, નાયબ વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧ ભરતી નિયમો, ૨૦૦૮ કહેવાશે.

૨. વાણિજ્યિક વેરા કમિશનરની કચેરીની સેવામાં,નાયબ વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧ની જગા ઉપરની નિમણૂક,-

(ક) ગુજરાત મુલ્કી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭માં ઠરાવ્યા પ્રમાણે " શ્રેષ્ઠતમ ધોરણ" ના સિધ્ધાંતોના આધારે બઢતીથી , -

(૧) જેણે વાણિજ્યિક વેરા કમિશનરની કચેરીમાં મઠઠનીશ વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧ના સંવર્ગમાં ઓછામાં ઓછા પાંચ વર્ષ સુધી કામ કર્યું હોય; અને

(૨) ગુજરાત મુલ્કી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો,૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરના જ્ઞાન માટેની લાયકી પરીક્ષા ઉત્તીર્ણ કરેલી હોય તેવી વ્યક્તિઓમાંથી કરવી જોઈશે: પરંતુ નિમણૂક આપનાર સત્તાધિકારીને એમ ખાતરી થાય કે ઉપર ખંડ(૧)માં નિર્દિષ્ટ કરેલ અનુભવ ધરાવતી વ્યકિત બઢતી માટે ઉપલભ્ય નથી અને તેનાથી ઓછી મુદતનો અનુભવ ધરાવતી વ્યકિતને બઢતી આપીને જગા ભરવાનું જાહેર હિતમાં જરૂરી છે, તો તે, લેખિતમાં કારણોની નોંધ કરીને, ઉપર ખંડ(૧)માં નિર્દિષ્ટ કરેલ મુદતના બે તૃતીયાંશ કરતાં ઓછી નહિ તેટલી મુદતનો અનુભવ ધરાવતી વ્યકિતને બઢતી આપી શકશે,

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(ખ) સીધી પસંદગીથી કરવી જોઈશે..

૩. બઢતીથી અને સીધી પસંદગીથી કરવાની નિમણૂકો ૩:૧ના પ્રમાણમાં કરવી જોઈશે.

૪. નિયમ ૨માં જણાવેલ જગા ઉપર સીધી પસંદગીથી નિમણૂકને પાત્ર થવા માટે ઉમેદવાર-

(ક) ૨૦ વર્ષથી ઓછી અને ૩૫ વર્ષથી વધુ ઉંમરનો હોવો જોઈશે નહિ;

(ખ) ભારતમાં કેન્દ્રીય અથવા રાજય અધિનિયમથી સ્થપાયેલી અથવા સંસ્થાપિત કોઈ યુનિવર્સિટીઓ પૈકી કોઈમાંથી અથવા યુનિવર્સિટી ગ્રાન્ટસ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ સરકાર દ્વારા માન્ય કરવામાં આવેલ કોઈ બીજી શૈક્ષણિક સંસ્થા અથવા યુનિવર્સિટી તરીકે ગણાતી યુનિવર્સિટીમાંથી મેળવેલ ચાર્ટડ એકાઉન્ટન્ટ અથવા કોસ્ટ એન્ડ વર્કસ એકાઉન્ટન્ટ (આઈ. સી. ડબલ્યુ. એ.) અથવા કંપની સેક્રેટરી અથવા એમ.બી.એ.(નાણા) અથવા એમ.કોમ. અથવા એમ.એસ.સી. (ગણિતશાસ્ત્ર અથવા આંકડાશાસ્ત્ર) અથવા એમ.એ. (આંકડાશાસ્ત્ર અથવા અર્થશાસ્ત્ર અથવા ગણિતશાસ્ત્ર)ની પ્રથમ વર્ગની પદવી અથવા સરકારે માન્ય કરેલી સમકક્ષ લાયકાત ધરાવતો હોવો જોઈશે;

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(ગ) (૧) સરકારમાં વર્ગ-૨થી ઊતરતા દરજ્જાની ન હોય તેવી જગા પર હિસાબ અને/ અથવા ઓડિટની કામગીરી સંબંધી ઓછામાં ઓછા પાંચ વર્ષ સુધીનો અનુભવ હોય, અથવા

(૨) અધિનિયમ હેઠળ અથવા નિયમોથી સ્થપાયેલું બોર્ડ અથવા કોર્પોરેશન અથવા યુનિવર્સિટી અથવા બેંકિંગ સંસ્થા અથવા કંપની અધિનિયમ, ૧૯૫૬ (સન ૧૯૫૬ના ૧લા) હેઠળ રજિસ્ટર થયેલી કંપનીમાં, સરકાર દ્વારા માન્ય કરવામાં આવે તેવી સરકારમાં વર્ગ-૨ની સમકક્ષ જગા પર હિસાબ અને/અથવા ઓડિટની કામગીરી સંબંધી ઓછામાં ઓછા પાંચ વર્ષ સુધીનો અનુભવ હોય.

(ઘ) ગુજરાત મુલ્કી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭માં ઠરાવ્યા પ્રમાણે કોમ્પ્યુટરના ઉપયોગ અંગેની Õëપાયાની જાણકારી ધરાવતો હોવો જોઈશે.

૫. સીધી પસંદગીથી નીમાયેલા ઉમેદવારે બે વર્ષની મુદત સુધી અજમાયશ પર રહેવું પડશે.

૬. પસંદ થયેલા ઉમેદવારે, સરકારે ઠરાવેલા નિયમો અનુસાર, હિન્દી અથવા ગુજરાતી અથવા તે બન્ને પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે.

૭. સીધી પસંદગીથી નીમાયેલા ઉમેદવારે, તેની અજમાયશની મુદત દરમિયાન, રાજપત્રિત અધિકારી પૂર્વ સેવા તાલીમ અને પરીક્ષા નિયમો,૧૯૭૦ ની જોગવાઈ અનુસાર પૂર્વ-સેવા તાલીમ લેવી પડશે અને તાલીમાંત પરીક્ષા ઉત્તીર્ણ કરવી પડશે.

૮. સીધી પસંદગીથી નીમાયેલા ઉમેદવારે, તેની અજમાયશની મુદત દરમિયાન, ગુજરાત મુલ્કી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરના જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરવી પડશે.

૯. સીધી પસંદગીથી અથવા બઢતીથી નીમાયેલા ઉમેદવારે, સરકાર ઠરાવે તેવી તાલીમ લેવી પડશે અને તેવી પરીક્ષા ઉત્તીર્ણ કરવી પડશે.

૧૦. પસંદ થયેલા ઉમેદવારે, સરકાર ઠરાવે તેવા નમૂનામાં, તેટલી રકમની અને તેટલી મુદત માટે જામીનગીરી અને જામીનખત પૂરા પાડવા જોઈશે.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે.એમ.અધ્વર્યુ,

સરકારના નાયબ સચિવ.

નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, : ૧૨મી સપ્ટેમ્બર, ૨૦૦૮.

ભારતનું સંવિધાન.

ક્રમાંકઃ જીએન - ૪૨ / વવક - ૧૨૦૩ - ૧૦૧૭ (પાર્ટ - ૨) - ઠ - ૩ઃ- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને આ અર્થે કરેલા તમામ નિયમો રદ કરીને, ગુજરાતના રાજ્યપાલ, આથી, વાણિજ્યિક વેરા કમિશનરની કચેરીમાં, **સહાયક વાણિજ્યિક વેરા કમિશનર**, વર્ગ ૧ની જગા પર ભરતીનું નિયમન કરવા માટેની જોગવાઈ કરવા માટે નીચેના નિયમો કરે છેઃ-

૧. આ નિયમો સહાયક વાણિજ્યિક વેરા કમિશનર, વર્ગ ૧, ભરતી નિયમો, ૨૦૦૮ કહેવાશે.

૨. વાણિજ્યિક વેરા કમિશનરની કચેરીમાં, સહાયક વાણિજ્યિક વેરા કમિશનર, વર્ગ ૧ની જગા પરની નિમણૂક,-

(ક) (ક) (૧) જેણે વાણિજ્યિક વેરા કમિશનરની કચેરીમાં, વાણિજ્યિક વેરા અધિકારી, વર્ગ ૨ના સંવર્ગમાં ઓછામાં ઓછું આઠ વર્ષ કામ કર્યું હોય; અને

(૨) ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરેલી હોય,

તેવી વ્યક્તિઓમાંથી સિદ્ધ ગુણવત્તા અને કાર્યદક્ષતાવાળી વ્યક્તિની બઢતીથી કરવી જોઈશેઃ

પરંતુ નિમણૂક આપનાર સત્તાધિકારીને એમ ખાતરી થાય કે ઉપર ખંડ (૧)માં નિર્દિષ્ટ કરેલો અનુભવ ધરાવતી વ્યક્તિ બઢતી માટે ઉપલબ્ધ નથી અને તેનાથી ઓછી મુદતનો અનુભવ ધરાવતી વ્યક્તિને બઢતી આપીને પણ જગા ભરવાનું જાહેર હિતમાં જરૂરી છે, તો તે, કારણોની લેખિતમાં નોંધ કરીને, ઉપર ખંડ (૧)માં નિર્દિષ્ટ કરેલી મુદતના બે તૃતીયાંશ કરતાં ઓછી નહિ તેટલી મુદતનો અનુભવ ધરાવતી વ્યક્તિને બઢતી આપી શકશે.

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(ખ) (૧) જેણે વાણિજ્યિક વેરા કમિશનરની કચેરીમાં, વાણિજ્યિક વેરા અધિકારી, વર્ગ ૨ના સંવર્ગમાં ઓછામાં ઓછું પાંચ વર્ષ કામ કર્યું હોય; અને

(૨) ભારતમાં કેન્દ્રીય અથવા રાજ્ય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓ અથવા સંસ્થાઓમાંથી કોઈપણ યુનિવર્સિટી અથવા સંસ્થાની અથવા તે તરીકે માન્ય થયેલી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ ડીમ્ડ યુનિવર્સિટી તરીકે જાહેર થયેલી બીજી કોઈપણ શૈક્ષણિક સંસ્થાની પદવી ધરાવતો હોય; અથવા સરકારે તે તરીકે માન્ય કરેલી તેને સમકક્ષ લાયકાત ધરાવતો હોય; અને

(૩) સરકારે ઠરાવેલા નિયમો અનુસાર ખાસ સ્પર્ધાત્મક પરીક્ષા ઉત્તીર્ણ કરેલી હોય

તેવી વ્યક્તિઓમાંથી, ખાસ સ્પર્ધાત્મક પરીક્ષાના આધારે, સિદ્ધ ગુણવત્તા અને કાર્યદક્ષતાવાળી વ્યક્તિની બઢતીથી કરવી જોઈશે.

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(ખ) ગુજરાત જાહેર સેવા આયોગે આ હેતુ માટે યોજેલી સ્પર્ધાત્મક પરીક્ષાના પરિણામના આધારે સીધી પસંદગીથી કરવી જોઈશે.

૩. (ક) નિયમ ૨ના પેટા-નિયમો (ક) અને (ખ) હેઠળ, બઢતીથી અને સીધી પસંદગીથી કરવાની નિમણૂકો અનુક્રમે ૩:૧ના પ્રમાણમાં કરવામાં આવશે.

(ખ) નિયમ ૨ના પેટા-નિયમ (ક)ના ખંડો (ક) અને (ખ) હેઠળ, વાણિજ્યિક વેરા અધિકારી, વર્ગ ૨ના સંવર્ગમાંથી બઢતીથી કરવાની નિમણૂકો અનુક્રમે ૨:૧ના પ્રમાણમાં કરવામાં આવશે.

૪. નિયમ ૨માં જણાવેલી જગા પર સીધી પસંદગીથી નિમણૂકને પાત્ર થવા માટે, ઉમેદવાર,-

(ક) ૨૦ વર્ષથી ઓછી અને ૩૩ વર્ષથી વધુ ઉંમરનો હોવો જોઈશે નહિ,

(ખ) (૧) ભારતમાં કેન્દ્રીય અથવા રાજ્ય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓમાંથી કોઈપણ યુનિવર્સિટીની અથવા તે તરીકે માન્ય થયેલી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ ડીમ્ડ યુનિવર્સિટી તરીકે જાહેર થયેલી બીજી કોઈપણ શૈક્ષણિક સંસ્થાની ચાર્ટર્ડ એકાઉન્ટન્ટની અથવા કોસ્ટ એન્ડ વર્ક્સ એકાઉન્ટન્ટની અથવા કંપની સેક્રેટરીની લાયકાત ધરાવતો હોવો જોઈશે;

અથવા

(૨) ભારતમાં કેન્દ્રીય અથવા રાજ્ય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓમાંથી કોઈપણ યુનિવર્સિટીની અથવા તે તરીકે માન્ય થયેલી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ ડીમ્ડ યુનિવર્સિટી તરીકે જાહેર થયેલી બીજી કોઈપણ શૈક્ષણિક સંસ્થાની એમબીએ (ફાઈનાન્સ) અથવા એમ.કોમ. અથવા એમ.એસસી. (ગણિતશાસ્ત્ર) અથવા એમ.એ. (આંકડાશાસ્ત્ર/ગણિતશાસ્ત્ર/અર્થશાસ્ત્ર)ની દ્વિતીય વર્ગની પદવી

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ધરાવતો હોવો જોઈશે અને સરકારમાં કચેરી અધીક્ષક, વર્ગ ૩ના દરજ્જાથી ઊતરતા દરજ્જાની ન હોય તેવી જગા ઉપર હિસાબ અને/અથવા ઓડિટ કામને લગતો ઓછામાં ઓછો ત્રણ વર્ષનો અનુભવ ધરાવતો હોવો જોઈશે અથવા અધિનિયમ અથવા નિયમોથી અથવા તે હેઠળ સ્થપાયેલા બોર્ડ અથવા કોર્પોરેશન અથવા યુનિવર્સિટી અથવા બેંકિંગ સંગઠનમાં અથવા કંપની અધિનિયમ, ૧૯૫૬ હેઠળ નોંધાયેલી કંપનીમા અથવા ચાર્ટર્ડ એકાઉન્ટન્ટની પેઢીમાં, સરકારમાં કચેરી અધીક્ષકના દરજ્જાથી ઊતરતા દરજ્જાની ન હોય તેવી જગાને સમકક્ષ અને સરકારે તે તરીકે માન્ય કરેલી જગા ઉપર, હિસાબ અને/અથવા ઓડિટ કામને લગતો ઓછામાં ઓછો ત્રણ વર્ષનો અનુભવ ધરાવતો હોવો જોઈશે;

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(૩) ભારતમાં કેન્દ્રીય અથવા રાજ્ય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓમાંથી કોઈપણ યુનિવર્સિટીની અથવા તે તરીકે માન્ય થયેલી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ ડીમ્ડ યુનિવર્સિટી તરીકે જાહેર થયેલી બીજી કોઈપણ શૈક્ષણિક સંસ્થાની બી.બી.એ (ફાઈનાન્સ) અથવા બી.કોમ. અથવા બી.એસસી. (ગણિતશાસ્ત્ર) અથવા બી.એ. (આંકડાશાસ્ત્ર/ગણિતશાસ્ત્ર/અર્થશાસ્ત્ર)ની પ્રથમ વર્ગની પદવી ધરાવતો હોવો જોઈશે અને સરકારમાં કચેરી અધીક્ષક, વર્ગ ૩ના દરજ્જાથી ઊતરતા દરજ્જાની ન હોય તેવી જગા ઉપર હિસાબ અને/અથવા ઓડિટ કામને લગતો ઓછામાં ઓછો પાંચ વર્ષનો અનુભવ ધરાવતો હોવો જોઈશે અથવા અધિનિયમ અથવા નિયમોથી અથવા તે હેઠળ સ્થપાયેલા બોર્ડ અથવા કોર્પોરેશન અથવા યુનિવર્સિટી અથવા બેંકિંગ સંગઠનમાં અથવા કંપની અધિનિયમ, ૧૯૫૬ હેઠળ નોંધાયેલી કંપનીમા અથવા ચાર્ટર્ડ એકાઉન્ટન્ટની પેઢીમાં, સરકારમાં કચેરી અધીક્ષકના દરજ્જાથી ઊતરતા દરજ્જાની ન હોય તેવી જગાને સમકક્ષ અને સરકારે તે તરીકે માન્ય કરેલી જગા ઉપર, હિસાબ અને/અથવા ઓડિટ કામને લગતો ઓછામાં ઓછો પાંચ વર્ષનો અનુભવ ધરાવતો હોવો જોઈશે;

(ગ) ગુજરાત મુલકી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭માં ઠરાવ્યા પ્રમાણે કોમ્પ્યુટરના ઉપયોગ અંગેની પાયાની જાણકારી ધરાવતો હોવો જોઈશે.

(ઘ) ગુજરાતી અને / અથવા હિન્દીનું પૂરતું જ્ઞાન ધરાવતો હોવો જોઈશેઃ

૫. સીધી પસંદગીથી નિમણૂક પામેલા ઉમેદવારને બે વર્ષની મુદત સુધી અજમાયશ પર રાખવામાં આવશે.

૬. પસંદ થયેલા ઉમેદવારે સરકારે ઠરાવેલા નિયમો અનુસાર હિન્દી અથવા ગુજરાતી અથવા તે બન્ને પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે.

૭. સીધી પસંદગીથી નિમણૂક પામેલા ઉમેદવારે, પોતાની અજમાયશની મુદત દરમિયાન, રાજપત્રિત અધિકારીઓના (નોકરી પૂર્વેની તાલીમ અને પરીક્ષા) અંગેના નિયમો, ૧૯૭૦ અનુસાર પૂર્વ-સેવા તાલીમ લેવી જોઈશે અને તાલીમાંત પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે.

૮. સીધી પસંદગીથી નિમણૂક પામેલા ઉમેદવારે, પોતાની અજમાયશની મુદત દરમિયાન, ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે.

૯. સીધી પસંદગીથી અથવા બઢતીથી નિમણૂક પામેલા ઉમેદવારે સરકાર ઠરાવે તેવી તાલીમ લેવી જોઈશે અને તેવી પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે.

૧૦. પસંદ થયેલા ઉમેદવારે સરકાર ઠરાવે તેવા નમૂનામાં, તેટલી મુદત માટે અને તેટલી રકમની જામીનગીરી અને જામીનખત પૂરાં પાડવાં જોઈશે.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે. એમ. અધ્વર્યુ,
સરકારના નાયબ સચિવ.

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નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, : ૧૨મી સપ્ટેમ્બર, ૨૦૦૮.

ભારતનું સંવિધાન.

ક્રમાંક: જીએન-૪૩/વવક-૧૨૦૩-૧૦૧૭(પાર્ટ-૨)-ઠ-૩ :- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને આ અર્થે કરેલા તમામ નિયમો રદ કરીને, ગુજરાતના રાજ્યપાલ, આથી, વાણિજ્યિક વેરા કમિશનરની કચેરીમાં, સંયુક્ત વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧ની જગા પર ભરતીનું નિયમન કરવા માટેની જોગવાઈ કરવા માટે નીચેના નિયમો કરે છેઃ-

૧. આ નિયમો, સંયુક્ત વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧ ભરતી નિયમો, ૨૦૦૮ કહેવાશે.

૨. વાણિજ્યિક વેરા કમિશનરની કચેરીમાં વાણિજ્યિક વેરાના સંયુક્ત કમિશનર, વર્ગ-૧ ની જગા ઉપરની નિમણૂક,-

(ક) (૧) જેણે વાણિજ્યિક વેરા કમિશનરની કચેરીમાં નાયબ વાણિજ્યિક વેરા કમિશનર, વર્ગ-૧ના સંવર્ગમાં ઓછામાં ઓછા પાંચ વર્ષ સુધી કામ કર્યું હોય; અને

(૨) ગુજરાત મુલકી સેવા કોમ્પ્યુટર ક્ષમતા તાલીમ અને પરીક્ષા નિયમો, ૨૦૦૬ની જોગવાઈઓ અનુસાર કોમ્પ્યુટરની જાણકારી અંગેની લાયકી પરીક્ષા ઉત્તીર્ણ કરેલી હોય,

તેવી વ્યકિતઓમાંથી ગુજરાત મુલકી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭ની જોગવાઈઓ અનુસાર, પ્રવરતાને લક્ષમાં લીધા સિવાય વિચારણા ક્ષેત્રની અંદર પસંદગીના સિદ્ધાંતને આધારે બઢતીથી કરવી જોઈશેઃ

પરંતુ નિમણૂક આપનાર સત્તાધિકારીને એમ ખાતરી થાય કે ઉપર ખંડ(૧)માં નિર્દિષ્ટ કરેલો અનુભવ ધરાવતી વ્યકિત બઢતી માટે ઉપલભ્ય નથી અને તેનાથી ઓછી મુદતનો અનુભવ ધરાવતી વ્યકિતને બઢતી આપીને પણ જગા ભરવાનું જાહેર હિતમાં જરૂરી છે, તો તે, કારણોની લેખિતમાં નોંધ કરીને, ઉપર ખંડ(૧)માં નિર્દિષ્ટ કરેલા મુદતના બે તૃતીયાંશ કરતાં ઓછી નહિ તેટલી મુદતનો અનુભવ ધરાવતી વ્યકિતને બઢતી આપી શકશે;

અથવા

(ખ) નીચલા (feeder) સંવર્ગમાં યોગ્ય અધિકારી ઉપલભ્ય ન હોય તેવા કિસ્સામાં, ગુજરાત વહીવટી સેવા (પસંદગી પગારધોરણ)ના સંવર્ગમાં કામ કરતી વ્યક્તિઓમાંથી પ્રતિનિયુક્તિના આધારે હંગામી તબદીલીથી કરવી જોઈશે.

૩. બઢતીથી નિમણૂક પામેલા ઉમેદવારે, સરકાર ઠરાવે તેવી તાલીમ લેવી પડશે અને તેવી પરીક્ષા ઉત્તીર્ણ કરવી પડશે.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે.એમ.અધ્વર્યુ,
સરકારના નાયબ સચિવ.

નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, : ૨૪મી ડિસેમ્બર, ૨૦૦૭.

ભારતનું સંવિધાન.

ક્રમાંકઃ (જીએન-૪૧)-વવક-૧૯૯૯-૧૭૧૧-ઠ૩:- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને આ અર્થે કરેલા તમામ નિયમો રદ કરીને, ગુજરાતના રાજ્યપાલ, આથી, ગુજરાત વાણિજ્યિક વેરા વિભાગમાં વાણિજ્યિક

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વેરા અધિકારી તરીકે નીમાયેલી વ્યક્તિઓની સેવાની શરતોનું, તે જયાં સુધી ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરવાને લાગુ પડે છે તેટલે સુધી, નિયમન કરવા માટે જોગવાઈ કરવા નીચેના નિયમો કરે છેઃ-

૧. (૧) આ નિયમો, વાણિજ્યિક વેરા અધિકારી (ખાતાકીય પરીક્ષા) નિયમો, ૨૦૦૭ કહેવાશે.

(૨) તે, રાજપત્રમાં તેની પ્રસિધ્ધિની તારીખે અમલમાં આવશે.

(૩) તે, વાણિજ્યિક વેરા વિભાગમાં વાણિજ્યિક વેરા ઈન્સ્પેકટર(નિરીક્ષક) તરીકે અથવા, યથાપ્રસંગ, વાણિજ્યિક વેરા અધિકારી તરીકે બઢતીથી અથવા અન્યથા નીમાયેલી વ્યક્તિઓને લાગુ પડશેઃ

પરંતુ નિયત તારીખ પહેલા પરીક્ષા ઉત્તીર્ણ કરી હોય અથવા પરીક્ષા ઉત્તીર્ણ કરવામાંથી મુક્તિ આપવામાં આવી હોય તેવી વ્યક્તિઓને આ નિયમો લાગુ પડશે નહિઃ

વધુમાં, આવી કોઈ વ્યકિતએ જૂના નિયમો હેઠળ પરીક્ષા ઉત્તીર્ણ કરવા માટે ઠરાવેલી તમામ તકો નિયત તારીખ પહેલાં લીધેલી હોય, તો, તે તેનાથી પહેલા જેમણે પરીક્ષા ઉત્તીર્ણ કરી હોય અને ઉચ્ચતર જગાએ જેમને નિયમિત બઢતી આપવામાં આવી હોય તેમની સામે સિનિયોરીટી માટે દાવો કરવાને હકદાર રહેશે નહિ અને તેમનાથી તે જુનિયર રહેશે, એ શરતને અધીન રહીને આ નિયમો હેઠળ પરીક્ષા ઉત્તીર્ણ કરવા માટે વધુ એક તક લેવા દેવામાં આવશે, જે તેણે આ નિયમો હેઠળ હાથ ધરવામાં આવનારી પ્રથમ પરીક્ષા વખતે લેવી જોઈશે.

૨. આ નિયમોમાં, સંદર્ભથી અન્યથા અપેક્ષિત ન હોય તો-

(ક) "પરિશિષ્ટ" એટલે આ નિયમો સાથે જોડેલું પરિશિષ્ટ;

(ખ) "નિયત દિવસ" એટલે જે દિવસે આ તમામ નિયમો અથવા તેની કોઈ જોગવાઈઓ અમલમાં લાવવા માટે નિયત કરેલી તારીખ;

(ગ) "સીધી ભરતીથી નીમાયેલી વ્યકિત" એટલે નીચેની જગા પરથી બઢતી સિવાય અન્યથા વાણિજ્યિક વેરા અધિકારી તરીકે નીમાયેલી વ્યકિત;

(ઘ) "પરીક્ષા અથવા સંબંધિત પરીક્ષા" એટલે વાણિજ્યિક વેરા અધિકારીની જગા પર બઢતી માટે આ નિયમો અથવા યથાપ્રસંગ, જૂના નિયમો હેઠળ નિર્દિષ્ટ કરવામાં આવેલી ખાતાકીય પરીક્ષા;

(ચ) "નિરીક્ષક" એટલે સિનિયર કારકૂનની જગા પરથી બઢતી પામેલી અથવા વેચાણવેરા નિરીક્ષક અથવા, યથાપ્રસંગ, વાણિજ્યિક વેરા અધિકારી તરીકે સીધી ભરતી કરાયેલી વ્યક્તિ;

(છ) "જૂના નિયમો" એટલે નિયત તારીખની તરત પહેલાં વેચાણવેરા અધિકારીની જગા પર બઢતી માટેની ખાતાકીય પરીક્ષા માટે અમલમાં હતા તે નિયમો;

(જ) "નિર્દિષ્ટ તકો" એટલે આ નિયમો હેઠળ જેટલી તકોની અંદર કોઈ વ્યકિતએ પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે તેવી નિર્દિષ્ટ કરેલી તકોની સંખ્યા;

(ઝ)"નિર્દિષ્ટ મુદત" એટલે જે મુદતની અંદર કોઈ વ્યકિતએ પરીક્ષાઓ ઉત્તીર્ણ કરવાની રહેશે તેવી આ નિયમોમાં નિર્દિષ્ટ કરેલી મુદત.

૩. નિયમ ૫ ની જોગવાઈઓને અધીન રહીને-

(૧) વાણિજ્યિક વેરા અધિકારી તરીકે સીધી ભરતીથી નીમાયેલી દરેક વ્યકિતએ તેની વાણિજ્યિક વેરા અધિકારી તરીકેની નિમણૂકની તારીખથી બે વર્ષની મુદતમાં પરીક્ષા ઉત્તીર્ણ કરવી જોઈશેઃ

પરંતુ આ નિયમમાં જોગવાઇ કર્યા પ્રમાણેની પરીક્ષા ઉત્તીર્ણ કરવાની મુદત, પરીક્ષા લેવામાં આવે તે તારીખ પહેલા પૂરી થઈ જાય, તો આ રીતે લેવામાં આવેલી આગામી પરીક્ષાનું પરિણામ જાહેર થાય તે તારીખ સુધી સદરહુ મુદત વધારવામાં આવશે.

(૨) રાજપત્રિત અધિકારી (પૂર્વ-સેવા તાલીમ અને પરીક્ષા) નિયમો, ૧૯૭૦માં ઠરાવેલી નીચે દર્શાવેલા કોષ્ટકની કોલમ (૧)માં નિર્દિષ્ટ કરેલી રાજપત્રિત જગાઓ પર સીધી ભરતીથી નીમાયેલી વ્યકિતઓ માટેની તાલીમાંત પરીક્ષા ઉત્તીર્ણ કરી હોય તેવી

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સીધી ભરતીથી નીમાયેલી વ્યક્તિઓને આ નિયમોમાં ઠરાવેલી પરીક્ષામાં સદરહુ કોષ્ટકની કોલમ (૨)માં નિર્દિષ્ટ કરેલા તત્સમાન પ્રશ્નપત્રો આપવા અને ઉત્તીર્ણ કરવામાંથી મુક્તિ આપવામાં આવશે.

કોષ્ટક

રાજપત્રિત અધિકારી (પૂર્વ-સેવા તાલીમ અને પરીક્ષા) નિયમો, ૧૯૭૦ના પરિશિષ્ટ 'ક' માં ઠરાવેલા પ્રશ્નપત્રો. (૧)	આ નિયમોના પરિશિષ્ટ 'ક' માં ઠરાવેલા તત્સમાન પ્રશ્નપત્રો. (૨)
પ્રશ્નપત્ર (૧) સેવાકીય બાબતો	પ્રશ્નપત્ર (૧) સેવાકીય બાબતો
પ્રશ્નપત્ર (૨) નાણાકીય બાબતો	પ્રશ્નપત્ર (૨) નાણાકીય બાબતો
પ્રશ્નપત્ર (૩) નાણાકીય બાબતો	પ્રશ્નપત્ર (૩) સેવાકીય બાબતો
પ્રશ્નપત્ર (૪)(૧) ભારતનું સંવિધાન	પ્રશ્નપત્ર (૫) ભારતનું સંવિધાન અને
પ્રશ્નપત્ર (૪)(૨) ચાલુ પંચવર્ષીય યોજના અને પંચાયતી રાજ	પ્રશ્નપત્ર (૫) પંચવર્ષીય યોજના

૪. વાણિજ્યિક વેરા અધિકારી તરીકે બઢતી માટે પાત્ર થવા માટે નિરીક્ષકે તેની નિમણૂકની તારીખથી છ વર્ષની મુદતમાં પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે, સિવાય કે તેને તે ઉત્તીર્ણ કરવામાંથી મુક્તિ આપવામાં આવી હોય:

પરંતુ એવા નિરીક્ષક કે જેણે નિયત દિવસે સેવાના છ વર્ષ પૂરા કર્યા હોય પરંતુ તેને નિરીક્ષક માટેની પરીક્ષા આપવા દેવામાં આવી ન હોય, તેણે નિયત દિવસથી છ વર્ષની મુદતમાં પરીક્ષા ઉત્તીર્ણ કરવી જોઈશે અને એવા નિરીક્ષક જેણે નિયત તારીખે નિરીક્ષક માટેની પરીક્ષા ઉત્તીર્ણ કરી હોય અને સેવાના છ વર્ષ પણ પૂરા કર્યા હોય, પરંતુ જેને સંબંધિત પરીક્ષા આપવા દેવામાં આવી ન હતી, તેણે આ નિયમો હેઠળ ઠરાવેલી પરીક્ષા નિયત તારીખથી ત્રણ વર્ષની મુદતમાં ઉત્તીર્ણ કરવી જોઈશે:

વધુમાં, આ નિયમમાં જોગવાઇ કર્યા પ્રમાણેની પરીક્ષા ઉત્તીર્ણ કરવાની મુદત પરીક્ષા યોજવામાં આવે તે તારીખ પહેલા પૂરી થતી હોય, તો આ રીતે લેવામાં આવેલી પરીક્ષાનું પરિણામ જાહેર થાય તે તારીખ સુધી સદરહુ મુદત વધારવામાં આવશે:

વળી, તેણે નિરીક્ષક તરીકે સેવાના બે વર્ષ પૂરા કર્યા હોય અને નિરીક્ષક માટેની ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરી હોય તે સિવાય કોઇ નિરીક્ષક પરીક્ષામાં બેસવાને પાત્ર થશે નહિ.

૫. પરીક્ષા નિર્દિષ્ટ મુદતમાં ત્રણથી વધુ નહિ તેટલી તકોમાં ઉત્તીર્ણ કરવી જોઈશે:

પરંતુ ઉપયોગમાં લીધેલી તકો અથવા જૂના નિયમો હેઠળ નિયત તારીખ પહેલા ઉપયોગમાં લેવી જોઈતી હતી તેવી તકો આ નિયમો હેઠળ ઉપયોગમાં લીધેલી તકો તરીકે ગણાશે:

વધુમાં, અનુસૂચિત જાતિ અને અનુસૂચિત આદિજાતિની વ્યક્તિઓને વધુ એક તક આપી શકાશે, જે સીધી ભરતી કરાયેલા ઉમેદવારના કિસ્સામાં નિયમ ૩ માં ઠરાવેલી મુદતમાં ઉપયોગમાં લેવી જોઈશે, અને ઉચ્ચતર જગા પર બઢતી માટે લાયક હોય તેવી વ્યક્તિઓના કિસ્સામાં નિયમ ૪ માં ઉલ્લેખેલી મુદત પૂરી થયાની તારીખથી એક વર્ષમાં ઉપયોગમાં લેવી જોઈશે.

૬. સીધી ભરતી કરાયેલ કોઇ ઉમેદવાર આ નિયમો હેઠળ ઠરાવ્યા પ્રમાણે પરીક્ષા ઉત્તીર્ણ કરવામાં નિષ્ફળ જાય, તો તેની સેવા સમા કરવામાં આવશે:

પરંતુ આવી કોઇ વ્યક્તિના કિસ્સામાં, રાજ્ય સરકારને એવી ખાતરી થાય કે તેને જેમાં છેલ્લી તક હતી તે પરીક્ષામાં તેના કાબૂ બહારના કારણોસર તે ઉત્તીર્ણ થઇ શકી ન હતી અથવા ખૂબ થોડા ગુણના ફરકથી પરીક્ષા ઉત્તીર્ણ કરી શકી ન હતી, તો રાજ્ય સરકાર, લેખિતમાં કારણોની નોંધ કરીને, પરીક્ષા ઉત્તીર્ણ કરવા માટે તેને વધુ એક તક આપી શકશે.

૭. નિયમ ૪માં નિર્દિષ્ટ કરેલી મુદતમાં અને નિયમ ૫ અનુસાર તેને મળવાપાત્ર તકોમાં કોઇ નિરીક્ષક પરીક્ષામાં ઉત્તીર્ણ થવામાં નિષ્ફળ જાય, તો તે, આવી રીતે નિષ્ફળ થવા છતાં, સરકાર વખતોવખત ઠરાવે તેવી પરીક્ષા ફી ભરીને કોઇપણ સમયે આવી પરીક્ષા આપવાને લાયક રહેશે અને તે પરીક્ષા ઉત્તીર્ણ કરે તો વાણિજ્યિક વેરા નિરીક્ષકના તેના સંવર્ગમાં તેની અસલ સિનિયોરીટી પ્રમાણે વાણિજ્યિક વેરા અધિકારીની જગા પર બઢતી માટે પાત્ર થશે:

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પરંતુ વાણિજ્યિક વેરા અધિકારીના સંવર્ગમાં, તે વાણિજ્યિક વેરા અધિકારી તરીકે બઢતી માટે પાત્ર થાય તે પહેલા જેમને નિયમ ૪માં નિર્દિષ્ટ કરેલી મુદતમાં અને નિયમ ૫ અનુસાર તેમને મળવાપાત્ર તકોની સંખ્યામાં ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરી હોવાના કારણે વાણિજ્યિક વેરા અધિકારી તરીકે બઢતી આપવામાં આવી હોય, તેમના પર સિનિયોરીટીનો દાવો કરવાને હકદાર રહેશે નહિ.

૮. નિર્દિષ્ટ મુદતમાં અને નિર્દિષ્ટ તકોમાં જેણે પરીક્ષા ઉત્તીર્ણ કરી હોય તેવા નિરીક્ષકને વાણિજ્યિક વેરા અધિકારીની જગા પર બઢતી મળ્યે, જેને નિરીક્ષકના સંવર્ગમાં તેનાથી જુનિયર હોવા છતાં પરીક્ષા પહેલા ઉત્તીર્ણ કરવાના કારણસર વાણિજ્યિક વેરા અધિકારી તરીકે બઢતી આપવામાં આવી હોય તેવી કોઈ વ્યક્તિ, હોય તો, તેનાથી સિનિયોરિટી આપવામાં આવશે.

૯. વાણિજ્યિક વેરા અધિકારીની જગા પર બઢતી માટે પાત્ર નિરીક્ષક ઉપલબ્ધ ન હોવાના કિસ્સામાં, બઢતી માટે લાયક ન હોય તેવા બિન-પાત્ર અને નિયમ ૪ અને ૫ હેઠળ પરીક્ષા ઉત્તીર્ણ કરવાની જેની તકો પૂરી થઈ ગઈ ન હોય તેવા નિરીક્ષકને, બઢતી માટે પાત્ર નિરીક્ષક ઉપલબ્ધ થયે અથવા નિયમ ૪માં નિર્દિષ્ટ કરેલી મુદતમાં અને નિયમ ૫ અનુસાર તકોમાં પરીક્ષા ઉત્તીર્ણ કરવામાં નિષ્ફળ જાય, તો તે બન્નેમાંથી જે વહેલું હોય તે પ્રમાણે તેને નિરીક્ષકની જગા પર પાછા મોકલવામાં આવશે તે શરતને અધીન રહીને, વાણિજ્યિક વેરા અધિકારી તરીકે કામગીરી કરવા માટે બઢતી આપી શકાશે.

સ્પષ્ટીકરણ.- આ નિયમમાં ''લાયક નિરીક્ષક'' એટલે જેણે પરીક્ષા ઉત્તીર્ણ કરી હોય અથવા જેને પરીક્ષા ઉત્તીર્ણ કરવામાંથી મુક્તિ આપવામાં આવી હોય તેવો નિરીક્ષક.

૧૦. વાણિજ્યિક વેરા નિરીક્ષકના ઈજાફા તેના પરીક્ષા ઉત્તીર્ણ કરવામાં નિષ્ફળ જવાથી અટકાવી શકાશે નહિ અને કોઈ નિરીક્ષકના કિસ્સામાં, નિયત તારીખ પહેલા જૂના નિયમો હેઠળ પરીક્ષા ઉત્તીર્ણ ન કરી શકવાના કારણે તેના કોઈ ઈજાફા અટકાવવામાં આવ્યા હોય, તો તે, નિયત તારીખથી અમલી બને તેમ મુક્ત કરવા જોઈશે અને ભવિષ્યના ઈજાફા જાણે કે કોઈ ઈજાફો અટકાવવામાં આવ્યો ન હતો તે રીતે તેને મળશે, પરંતુ આવા નિરીક્ષક તેના ઈજાફા અટકાવાયા હોવાના કારણે તેણે ગુમાવવા પડેલા પગારના બાકી લેણા (એરિયર્સ) માટે દાવો કરવાને હકદાર રહેશે નહિ.

૧૧. વાણિજ્યિક વેરા કમિશનર એક વર્ષમાં બે વખત ગુજરાત ઈન્સ્ટિટ્યુટ ઓફ કોમર્શિયલ ટેક્સ મેનેજમેન્ટ મારફત પરીક્ષા યોજશે.

૧૨. પરીક્ષા માટેનો અભ્યાસક્રમ પરિશિષ્ટ-ક માં નિર્દિષ્ટ કર્યા પ્રમાણેનો રહેશે.

૧૩. આ નિયમો હેઠળ પરીક્ષામાં બેસવા ઇચ્છતા કોઈ નિરીક્ષકે અથવા વાણિજ્યિક વેરા અધિકારીએ પરિશિષ્ટ-ખ માં આપેલા નમૂનામાં પોતાનું નામ નોંધાવવા માટેની અરજી તેની કચેરીના વડા મારફતે પરીક્ષા શરૂ થવાની તારીખથી ઓછામાં ઓછા ૬૦ દિવસ પહેલા ગુજરાત ઈન્સ્ટિટ્યુટ ઓફ કોમર્શિયલ ટેક્સ મેનેજમેન્ટ, અમદાવાદ-ને મોકલી આપવી જોઈશે. ગુજરાત ઈન્સ્ટિટ્યુટ ઓફ કોમર્શિયલ ટેક્સ મેનેજમેન્ટ તેની અરજીની ચકાસણી કરશે અને તે પરીક્ષા આપવાને લાયક છે તેવા કચેરીના વડાએ આપેલા પ્રમાણપત્રના આધારે તેને સ્વીકારી શકશે. અરજદાર પાછળથી પરીક્ષા ન આપવાનો નિર્ણય કરે તો તેણે કચેરીના વડા મારફત પરીક્ષાના આરંભની તારીખથી ઓછામાં ઓછા ત્રીસ દિવસ પહેલા ગુજરાત ઈન્સ્ટિટ્યુટ ઓફ કોમર્શિયલ ટેક્સ મેનેજમેન્ટને તેની જાણ કરવી જોઈશે. પરીક્ષામાં બેસવા માટે ઉમેદવાર તરીકે પોતાનું નામ નોંધાવ્યા બાદ પરંતુ ઉપર્યુક્ત રીતે પહેલેથી જાણ કર્યા વિના, કોઈ વ્યક્તિ તેમાં બેસવામાં ચૂક કરે તેવા કિસ્સામાં, તેણે પરીક્ષા ઉત્તીર્ણ કરવાની એક તક ગુમાવી હોવાનું ગણાશે:

પરંતુ ગુજરાત સરકારને એવી ખાતરી થાય કે તે વ્યક્તિ તેની કાબૂ બહારના કારણોસર ઉપર્યુક્ત રીતે જાણ કરી શકી નથી, તો તે, આવી વ્યક્તિના પક્ષે ઉપર જણાવ્યા પ્રમાણે જાણ કરવામાં થયેલી ચૂક અને તેમાંથી ઉદ્ભવતા પરિણામો બદલ મુક્તિ આપી શકશે.

૧૪. (૧) ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરવાનું ધોરણ દરેક પ્રશ્નપત્રને ફાળવવામાં આવેલા કુલ ગુણના પચાસ ટકાનું રહેશે.

(૨) ઉમેદવારને તમામ પ્રશ્નપત્રોના ઉત્તર વિષયના પુસ્તકો જેવા કે ફક્ત અધિનિયમ, નિયમો, કોઈ ટિપ્પણીઓ અથવા કેસ લૉ વગરના પુસ્તક અને તેમાં ગુજરાત સરકારે પ્રસિધ્ધ કરેલા મેન્યુઅલ્સનો સમાવેશ થાય છે, તેની મદદથી આપવાની છૂટ આપવામાં આવશે.

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(૩) એક અથવા તેથી વધુ પ્રશ્નપત્રોમાં ૬૦ ટકા અથવા તેથી વધુ ગુણ પ્રા કરનાર અસફળ ઉમેદવારને, ત્યાર પછીની પરીક્ષામાં આ પ્રશ્નપત્રોમાં ઉપસ્થિત થવામાંથી મુક્તિ આપવામાં આવશેઃ

પરંતુ આવા ઉમેદવારે જૂના નિયમો હેઠળ મેળવેલ કોઇ મુક્તિ આ નિયમો હેઠળ મેળવેલ મુક્તિ ગણાશે.

૧૫. ઉમેદવાર પરિણામ જાહેર થયાની તારીખથી ત્રીસ દિવસની અંદર ગુણની ચકાસણી માટે કચેરીના વડા મારફત ગુજરાત ઇન્સ્ટિટ્યુટ ઓફ કોમર્શીયલ ટેક્સ મેનેજમેન્ટ, અમદાવાદ-ને કોરા કાગળ પર અરજી કરી શકશે. તેણે સરકાર વખતોવખત ઠરાવે તેવી ફી સરકારી તિજોરીમાં ભરવી જોઇશે. અરજી ચલનની અસલ નકલ અને ગુણપત્રક સાથે સાદર કરવી જોઇશે. કોઇપણ સંજોગોમાં ઉત્તરવહીનું પુનઃમૂલ્યાંકન કરવામાં આવશે નહિ.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે.એમ. અધ્વર્યુ,
સરકારના નાયબ સચિવ.

"પરિશિષ્ટ ક"

(જુઓ નિયમ ૧૨)

વાણિજ્યિક વેરા અધિકારી માટેની ખાતાકીય પરીક્ષાનો અભ્યાસક્રમ.

પ્રશ્નપત્ર ૧	**સેવાકીય બાબતો** **સમય ૩ કલાક**	**૧૦૦ ગુણ**
૧	ગુજરાત મુલકી સેવા (વર્તણૂક) નિયમો, ૧૯૭૧	૪૦ ગુણ
૨	ગુજરાત મુલકી સેવા (શિસ્ત અને અપીલ) નિયમો, ૧૯૭૧.	૪૦ ગુણ
૩	ગુજરાત મુલકી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭	૧૦ ગુણ
૪	ભ્રષ્ટાચાર નિવારણ અધિનિયમ, ૧૯૮૮	૧૦ ગુણ
પ્રશ્નપત્ર ૨	**નાણાકીય બાબતો** **સમય ૩ કલાક**	**૧૦૦ ગુણ**
૧	ભારત સરકારના હિસાબો અને ઓડિટનો પરિચય, નીચેના સિવાય (૧) પ્રકરણ ૭ અને ૯ પાર્ટ સી,ડી,ઇ. (૨) પ્રકરણ ૧૮, ૨૧, ૨૨, ૨૩, ૩૧, ૩૨, ૩૩, ૩૪ અને ૩૬ (પરિચ્છેદ ૭૬થી ૭૭૬, ૭૮૧ થી ૭૮૫). (૩) પ્રકરણ ૩૭, ૩૮ અને ૩૯.	૨૦ ગુણ
૨	**ગુજરાત બજેટ મેન્યુઅલ (અંદાજપત્ર નિયમસંગ્રહ)** પુસ્તક નં.૧ પુસ્તક નં.૨ (અનુસૂચિ ૨,૪ અને ૫ સિવાય)	૪૦ ગુણ
૩	**મુંબઇ આકસ્મિક ખર્ચ નિયમો.**	૪૦ ગુણ
પ્રશ્નપત્ર ૩	**સેવાકીય બાબતો** **સમય ૩ કલાક**	**૧૦૦ ગુણ**
૧	**ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨,-**	૭૦ ગુણ
૧	સેવાની સામાન્ય શરતો	
૨	પગાર	
૩	પગારમાંના ઉમેરણો	
૪	મુસાફરી ભથ્થું	
૫	સરકારી નિવાસી સગવડોનું કામકાજ	
૬	ફરજ પર જોડાવાનો સમય, વિદેશ સેવાઓ, ભારત બહાર પ્રતિનિયુક્તિ, ફરજ-મોકૂફી,	

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	દરમિયાન ચૂકવણી, બરતરફી અને હોદ્દા પરથી દૂર કરવા	
૭	રજા	
૮	પેન્શન	
૨	**ગુજરાત નાણાકીય નિયમો, ૧૯૭૧,** **(નિયમો ૧૫૯ થી ૧૮૨ અને પરિશિષ્ટ ૧૪ અને ૨૪ સિવાય).**	**૩૦ ગુણ**
પ્રશ્નપત્ર ૪	**કાર્યરીતિને લગતા અને બીજા કાયદાઓ સમય ૩ કલાક**	**૧૦૦ ગુણ**
૧	ભારતનો ફોજદારી અધિનિયમ, ૧૮૬૦ પ્રકરણો ૨ અને ૪ કલમ ૧૧૯ પ્રકરણ ૯, ૯ક, ૧૦, ૧૧, ૧૬, ૧૭, ૧૮ (કલમો ૪૬૨ થી ૪૭૭-ક) અને પ્રકરણ ૨૧ (કલમો ૪૯૯ થી ૫૦૦)	૫૦ ગુણ
૨	ફોજદારી કાર્યરીતિ અધિનિયમ, ૧૯૭૩ પ્રકરણ ૨, ૩, ૪, ૮, ૯, ૧૧, ૨૯, ૩૭ અને ૩૮	૨૦ ગુણ
૩	ભારતનો પુરાવા અધિનિયમ,૧૮૭૨ (કલમો ૧ થી ૧૧૫)	૨૦ ગુણ
૪	દીવાની કાર્યરીતિ અધિનિયમ, ૧૯૦૮ (હુકમો ૫, ૧૩, ૧૬ અને ૧૮)	૧૦ ગુણ
પ્રશ્નપત્ર ૫	**ભારતનું સંવિધાન અને પંચવર્ષીય યોજના સમય ૩ કલાક**	**૧૦૦ ગુણ**
૧	ભારતનું સંવિધાન	૫૦ ગુણ
૨	પંચવર્ષીય યોજના,- (૧) ગુજરાત રાજ્યની છેલ્લે પૂર્ણ થયેલી પંચવર્ષીય યોજના (૨) દેશની છેલ્લે પૂર્ણ થયેલી પંચવર્ષીય યોજના	૩૦ ગુણ
૩	સામુદાયિક પરિયોજનાઓ અને પંચાયતી રાજઃ (૧) સામુદાયિક વિકાસના સિદ્ધાંતો (૨) વિસ્તરણ, તેની ગોઠવણ અને રીતો (૩) પંચાયતી રાજની પૂર્વભૂમિકા (૪) ગુજરાતમાં પંચાયતી રાજ	૨૦ ગુણ
પ્રશ્નપત્ર ૬	**ગુજરાત મૂલ્યવર્ધિત વેરા અધિનિયમ સમય ૩ કલાક**	**૧૦૦ ગુણ**
૧	ગુજરાત મૂલ્યવર્ધિત વેરા અધિનિયમ, ૨૦૦૩ અને તે હેઠળ કરવામાં આવેલા નિયમો, જાહેરનામા અને હુકમો	૪૦ ગુણ
૨	કેન્દ્રીય વેચાણવેરા અધિનિયમ, ૧૯૫૬ અને કેન્દ્ર સરકારે અને ગુજરાત સરકારે તે હેઠળ કરેલા નિયમો	૧૫ ગુણ
૩	ગુજરાત સ્થાનિક વિસ્તારોમાં નિર્દિષ્ટ માલના પ્રવેશ પર વેરા અધિનિયમ, ૨૦૦૧	૦૫ ગુણ
૪	ભારતનો માલના વેચાણ બાબતનો અધિનિયમ, ૧૯૩૦	૨૦ ગુણ
૫	ભારતનો કરાર અધિનિયમ, ૧૮૭૨,- પ્રકરણ ૧ : (કલમો ૩,૫ અને ૮) પ્રકરણ ૨ : (કલમો ૧૦, ૧૧, ૧૩ થી ૧૮, ૨૨ થી ૨૫ અને ૨૭) પ્રકરણ ૪ : (કલમો ૩૭ થી ૪૦, ૪૬ અને ૪૭) પ્રકરણ ૧૦ : (કલમો ૧૮૨ થી ૧૮૮, ૨૧૧, ૨૧૩ અને ૨૧૪).	૨૦ ગુણ
પ્રશ્નપત્ર ૭	**વાણિજ્યિક હિસાબો અને આકારણી સમય ૩ કલાક**	**૧૦૦ ગુણ**
૧	ટ્રેડીંગ અને નફા અને નુકસાનના હિસાબો અને સરવૈયા તૈયાર કરવા સહિત દ્વિનોંધી નામાપદ્ધતિના સિદ્ધાંતો અને ઉપયોગ	૪૦ ગુણ
૨	મૂલ્યવર્ધિત વેરા અધિનિયમનો અમલ અને કચેરી વ્યવસ્થા (આ વિષયની પરીક્ષા એ રીતે તૈયાર કરવી જોઈશે કે જેથી રજિસ્ટ્રેશન, રિટર્ન (પત્રક), ચેકપોસ્ટ, આકારણી, વસૂલાત, રિફંડ, ગુના, ફોજદારી કામ, વગેરે જેવા મૂલ્યવર્ધિત વેરા કાયદાના વહીવટી ઉત્તીર્ણાઓને લગતી વિભાગે બહાર પાડેલી સૂચનાઓ સંબંધે	૩૫ ગુણ

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	ઉમેદવારની ક્સોટી કરી શકાય. પ્રશ્નોમાં પણ વિભાગના માળખા, કચેરી અને કાર્યરીતિ પદ્ધતિઓ વિષે વિભાગે બહાર પાડેલી વિવિધ સુચનાઓનો સમાવેશ કરી શકાય)	
૩	એસેસમેન્ટ કેસ (આકારણી)	૨૫ ગુણ

"પરિશિષ્ટ ખ"

(જુઓ નિયમ ૧૩)

અરજીનો નમૂનો

વાણિજ્યિક વેરા અધિકારી માટેની ખાતાકીય પરીક્ષા આપવા માટેની અરજી.

૧ અરજદારનું પૂરું નામ:
(અટક પહેલી લખવી)
(અંગ્રેજીમાં અને ગુજરાતીમાં)

૨ હોદ્દો (અંગ્રેજીમાં અને ગુજરાતીમાં):

૩ હાલમાં જ્યાં સેવા આપતા હોય તે કચેરીનું નામ:

૪ જન્મ તારીખ અને આ પરીક્ષા સમયે વય:

૫ નિમણૂકની તારીખ અને નોકરીના કુલ વર્ષ:
(રાજપત્રિત/ બિન-રાજપત્રિત)

૬ અગાઉ પરીક્ષામાં બેઠા છે કે કેમ? એમ હોય તો,
(ક) પરીક્ષાનો મહિનો અને વર્ષ
(ખ) કોઇ મુકિત મળી છે કે કેમ?
એમ હોય તો ગુણ-વિગત, પરીક્ષા વર્ષ અને વિષય જણાવો.
(ગ) મળેલ મુકિતનો લાભ લેવા ઈચ્છે છે કે કેમ?
"હા" કે "ના" જણાવો.
(પસંદગી આખરી ગણાશે)

૭ જે દરમિયાન તેણે/તેણીએ પરીક્ષા ઉત્તીર્ણ કરવાની રહેતી હોય તે તકની સંખ્યા અને સમય-મર્યાદા
(પરીક્ષામાં બેસવા માટે પાત્ર થતા હોય તે તારીખ અને પાત્રતા પૂરી થતી હોય તે તારીખ જણાવો)

૮ લીધેલી તકોની સંખ્યા

૯ કોઇ વધારાની (ખાસ) તક આપવામાં આવી હોય તો તે (જે હુકમો હેઠળ વધારાની (ખાસ) તક આપવામાં આવી હોય તેનો ક્રમાંક અને તારીખ જણાવવી અને તેની એક નકલ સાથે જોડવી.)

૧૦ પરીક્ષા ઉત્તીર્ણ કરવાનો હેતુ (દા.ત. બહાલી, બઢતી, વગેરે)

૧૧ ખાતાકીય પરીક્ષાના નિયમો અનુસાર પરીક્ષામાં બેસવાને લાયક છે કે કેમ.

૧૨ ફી ભર્યાની વિગતો, જરૂરી હોય તો ચલનની નકલ રજૂ કરવી.

૧૩ વિશેષ નોંધ, કોઇ હોય તો.

સ્થળ :
તારીખ: (અરજદારની સહી)

યોગ્યતાનું પ્રમાણપત્ર

આથી પ્રમાણપત્ર આપવામાં આવે છે કે ઉપરની વિગતોની ખરાઇ કરવામાં આવી છે અને તે ખરી જણાઇ છે.

શ્રી/શ્રીમતી, ...૨૦૦.....માં યોજાનાર પરીક્ષામાં બેસવા માટે લાયક છે.

સ્થળ :
તારીખ: (કચેરીના વડાની સહી અને હોદ્દો)

નાણા વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, : ૧૭મી ફેબ્રુઆરી, ૨૦૦૯.

ભારતનું સંવિધાન.

ક્રમાંક: જીએન-૬/વવક/૧૨૨૦૦૮/૨૪૦/ઠ.૩:- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને આ અર્થે કરેલા તમામ નિયમો રદ કરીને, ગુજરાતના રાજ્યપાલ, આથી, વાણિજ્યિક વેરા વિભાગની ગુજરાત તાબાની સેવામાં વાણિજ્યિક વેરા ઇન્સ્પેક્ટર (નિરીક્ષક), વર્ગ-૩ની જગા પર નીમાયેલી વ્યક્તિઓની સેવાની શરતોનું, તે જયાં સુધી ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરવાને લાગુ પડે છે તેટલે સુધી, નિયમન કરવા માટે જોગવાઈ કરવા નીચેના નિયમો કરે છે:-

૧. (૧) આ નિયમો, ગુજરાત વાણિજ્યિક વેરા ઇન્સ્પેક્ટર(નિરીક્ષક), વર્ગ-૩ (ખાતાકીય પરીક્ષા) નિયમો, ૨૦૦૯ કહેવાશે.

(૨) તે, ગુજરાત વાણિજ્યિક વેરા વિભાગની તાબાની સેવામાં વાણિજ્યિક વેરા ઇન્સ્પેક્ટર (નિરીક્ષક) તરીકે બઢતીથી અથવા અન્યથા નીમાયેલી વ્યક્તિઓને લાગુ પડશે:

પરંતુ આવી કોઇ વ્યક્તિએ નિયત તારીખ પહેલા સંબંધિત પરીક્ષા ઉત્તીર્ણ કરી હોય અથવા પરીક્ષા ઉત્તીર્ણ કરવામાંથી તેને મુક્તિ આપવામાં આવી હોય તેણે આ નિયમોમાં જોગવાઇ કર્યા પ્રમાણે પરીક્ષા ઉત્તીર્ણ કરવાની જરૂર રહેશે નહિ:

વધુમાં, આવી કોઇ વ્યકિતએ જૂના નિયમો હેઠળ પરીક્ષા ઉત્તીર્ણ કરવા માટે ઠરાવેલી તમામ તકો નિયત તારીખ પહેલાં લીધેલી હોય, ત્યારે તેનાથી/તેણીથી પહેલા જેમણે પરીક્ષા ઉત્તીર્ણ કરી હોય અને ઉચ્ચતર જગાએ જેમને નિયમિત બઢતી આપવામાં આવી હોય તેમની સામે સિનિયોરીટી માટે દાવો કરવાને હકદાર રહેશે નહિ અને તેમનાથી તે જુનિયર રહેશે, એ શરતને અધીન રહીને આ નિયમો હેઠળ પરીક્ષા ઉત્તીર્ણ કરવા માટે વધુ એક તક લેવા દેવામાં આવશે, જે તેણે/તેણીએ આ નિયમો હેઠળ હાથ ધરવામાં આવનારી પ્રથમ પરીક્ષા વખતે લેવી જોઇશે.

૨. આ નિયમોમાં, સંદર્ભથી અન્યથા અપેક્ષિત ન હોય તો-

(ક) "પરિશિષ્ટ" એટલે આ નિયમો સાથે જોડેલું પરિશિષ્ટ;

(ખ) "નિયત તારીખ" એટલે જે દિવસે આ નિયમો અમલમાં આવશે તે તારીખ;

(ગ) "મંડળ" એટલે ગુજરાત ગૌણ સેવા પસંદગી મંડળ, ગાંધીનગર;

(ઘ) "વાણિજ્યિક વેરા નિરીક્ષક" એટલે વાણિજ્યિક વેરા વિભાગમાંના વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩;

(ચ) "સીધી ભરતીથી નીમાયેલી વ્યકિત" એટલે સિનિયર કારકૂનમાંથી બઢતી સિવાય અન્યથા વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩ તરીકે નીમાયેલી વ્યક્તિ;

(છ) "પરીક્ષા" એટલે આ નિયમો હેઠળ ઠરાવેલી ખાતાકીય પરીક્ષા;

(જ) "સિનિયર કારકૂન" એટલે વાણિજ્યિક વેરા વિભાગમાંના સિનિયર કારકૂન, વર્ગ-૩;

(ઝ)"જૂના નિયમો" એટલે નિયત તારીખની તરત પહેલાં વેચાણવેરા નિરીક્ષક, વર્ગ-૩ની ખાતાકીય પરીક્ષા માટે અમલમાં હતા તે નિયમો;

(ટ) "સંબંધિત પરીક્ષા" એટલે વાણિજ્યિક વેરા નિરીક્ષક માટેની વાણિજ્યિક વેરા નિરીક્ષકની પરીક્ષા અને તેમાં જૂના નિયમો હેઠળ ઠરાવેલા વેચાણવેરા નિરીક્ષક માટેની ખાતાકીય પરીક્ષાનો સમાવેશ થાય છે;

(ઠ) "નિર્દિષ્ટ તકો" એટલે આ નિયમો હેઠળ જેટલી તકોની અંદર કોઇ વ્યકિતએ પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે તેવી નિર્દિષ્ટ કરેલી તકોની સંખ્યા;

(ડ) "નિર્દિષ્ટ મુદત" એટલે જેટલી મુદતની અંદર કોઇ વ્યકિતએ પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે તેવી આ નિયમોમાં નિર્દિષ્ટ કરેલી મુદત.

૩. નિયમ ૫ ની જોગવાઇઓને અધીન રહીને, બઢતી સિવાય અન્યથા વાણિજ્યિક વેરા નિરીક્ષક તરીકે નીમાયેલી દરેક વ્યક્તિએ તેની અજમાયશની મુદત દરમિયાન પૂર્વ-સેવા તાલીમ લેવી જોઇશે અને પરીક્ષા ઉત્તીર્ણ કરવી જોઇશે:

પરંતુ બઢતી સિવાય અન્યથા વાણિજ્યિક વેરા નિરીક્ષક તરીકે નીમાયેલી વ્યક્તિના કિસ્સામાં આ નિયમમાં જોગવાઇ કર્યા પ્રમાણેની પરીક્ષા ઉત્તીર્ણ કરવાની મુદત, પરીક્ષા લેવામાં આવે તે તારીખ પહેલા પૂરી થઇ જાય, તો આ રીતે લેવામાં આવેલી આગામી પરીક્ષાનું પરિણામ જાહેર થાય તે તારીખ સુધી સદરહુ મુદત વધારવામાં આવી હોવાનું ગણાશે.

૪. વાણિજ્યિક વેરા નિરીક્ષકની જગા પર બઢતી માટે પાત્ર થવા માટે પરીક્ષા ઉત્તીર્ણ કરવા માટે સિનિયર કારકૂને, સિનિયર કારકૂન તરીકેની નિમણૂકની તારીખથી ઓછામાં ઓછા ત્રણ વર્ષની સેવા પૂરી કરેલી હોવી જોઇશે.

૫. પરીક્ષા નિર્દિષ્ટ મુદતમાં ત્રણ તકોમાં ઉત્તીર્ણ કરવી જોઇશે:

પરંતુ ઉપયોગમાં લીધેલી તકો અથવા જૂના નિયમો હેઠળ અથવા અન્યથા નિયત તારીખ પહેલા ઉપયોગમાં લેવી જોઇતી હતી તેવી તકો આ નિયમો હેઠળ વાપરેલી તકો તરીકે ગણાશે:

વધુમાં, અનુસૂચિત જાતિ અને અનુસૂચિત આદિજાતિની વ્યક્તિઓને વધુ એક તક આપી શકાશે, જે તેણે જેમાં છેલ્લી તક આપવામાં આવી હોય તે પરીક્ષાનું પરિણામ જાહેર થયાની તારીખથી એક વર્ષમાં વાપરવી જોઇશે.

૬. (૧) સીધી ભરતીથી વાણિજ્યિક વેરા ઇન્સ્પેકટર તરીકે નીમાયેલી કોઇ વ્યક્તિ આ નિયમો હેઠળ ઠરાવ્યા પ્રમાણે નિર્દિષ્ટ તકોમાં અને નિર્દિષ્ટ મુદતમાં પરીક્ષા ઉત્તીર્ણ કરવામાં નિષ્ફળ જાય, તો તેની સેવા સમા કરવામાં આવશે:

પરંતુ આવી કોઇ વ્યક્તિના કિસ્સામાં, વાણિજ્યિક વેરા કમિશનરને એવી ખાતરી થાય કે તેને/તેણીને જેમાં છેલ્લી તક હતી તે પરીક્ષામાં તેના કાબૂ બહારના કારણોસર તે ઉત્તીર્ણ થઇ શકી ન હતી, તો વાણિજ્યિક વેરા કમિશનર, લેખિતમાં કારણોની નોંધ કરીને, સરકાર વખતોવખત નક્કી કરે તેવી પરીક્ષા ફી ભર્યેથી, પરીક્ષામાં બેસવા માટે તેને વધુ એક તક આપી શકશે:

વધુમાં, સીધી ભરતીની જે વ્યક્તિઓએ પરીક્ષા ઉત્તીર્ણ કરી હોય અને તેની/તેણીની પહેલા જેને બઢતી આપવામાં આવી હોય તેના સંબંધમાં તે/તેણી તેની સિનિયોરિટી ગુમાવશે.

(૨) નીચેના સંવર્ગમાંથી જેને બઢતી આપવામાં આવી હોય તેવો કોઇ સિનિયર કારકૂન નિર્દિષ્ટ તકોમાં અને નિર્દિષ્ટ મુદતમાં પરીક્ષા ઉત્તીર્ણ કરવામાં નિષ્ફળ જાય, તો તે/તેણી, આવી નિષ્ફળતાને ધ્યાનમાં લીધા વિના, સરકાર વખતોવખત નક્કી કરે તેવી પરીક્ષા ફી ભર્યે, કોઇપણ સમયે આવી પરીક્ષામાં બેસવાને લાયક ગણાશે અને તે/તેણી આવી પરીક્ષા ઉત્તીર્ણ કરે તો તેને/તેણીને વાણિજ્યિક વેરા નિરીક્ષકની જગા પર બઢતી માટે લાયક ગણવામાં આવશે:

પરંતુ વાણિજ્યિક વેરા નિરીક્ષકના સંવર્ગમાં, તે/તેણી વાણિજ્યિક વેરા નિરીક્ષક તરીકે બઢતી માટે પાત્ર થાય તે પહેલા જેમને નિયમ ૪માં નિર્દિષ્ટ કરેલી મુદતમાં અને તકોની સંખ્યામાં ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરી હોવાના કારણે વાણિજ્યિક વેરા નિરીક્ષક તરીકે બઢતી આપવામાં આવી હોય, તેમના પર સિનિયોરીટીનો દાવો કરવાને હકદાર રહેશે નહિ.

૭. (૧) મંડળ એક કેલેન્ડર વર્ષમાં ઓછામાં ઓછી બે વાર પરીક્ષા યોજશે.

(૨) પરીક્ષાની તારીખ, જગ્યા અને કાર્યક્રમની જાણ મંડળ દ્વારા કરવામાં આવશે.

૮. વાણિજ્યિક વેરા નિરીક્ષકની પરીક્ષા માટેનો અભ્યાસક્રમ પરિશિષ્ટ ''ક'' માં નિર્દિષ્ટ કર્યા પ્રમાણેનો રહેશે.

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૯. (૧) આ નિયમો હેઠળ પરીક્ષામાં બેસવા ઇચ્છતી કોઇ વ્યક્તિએ પરિશિષ્ટ 'ખ' માં આપેલા નમૂનામાં પોતાનું નામ પરીક્ષાના ઉમેદવાર તરીકે નોંધાવવા માટેની અરજી પરીક્ષા શરૂ થવાની તારીખથી ઓછામાં ઓછા ૬૦ દિવસ પહેલાં તેની કચેરીના વડા મારફતે ગુજરાત ઇન્સ્ટિટ્યુટ ઓફ કોમર્શિયલ ટેક્સ મેનેજમેન્ટ-ને મોકલી આપવી જોઇશે. ગુજરાત ઇન્સ્ટિટ્યુટ ઓફ કોમર્શિયલ ટેક્સ મેનેજમેન્ટ તેની અરજી મળ્યે તેની ચકાસણી કરશે અને તે/તેણી પરીક્ષા આપવાને લાયક છે તેવા કચેરીના વડાએ આપેલા પ્રમાણપત્રના આધારે તેને સ્વીકારી શકશે અને તે સચિવ, ગુજરાત ગૌણ સેવા પસંદગી મંડળ, ગાંધીનગર-ને મોકલી આપશે.

(૨) અરજદાર પછીથી પરીક્ષા ન આપવાનો નિર્ણય કરે તો તેણે પરીક્ષાના આરંભની તારીખથી ઓછામાં ઓછા ત્રીસ દિવસ પહેલા કચેરીના વડાને તેની જાણ કરવી જોઇશે.

(૩) પરીક્ષામાં બેસવા માટે ઉમેદવાર તરીકે પોતાનું નામ નોંધાવ્યા બાદ, પરંતુ નિયમ (૨)માં નિર્દિષ્ટ કર્યા પ્રમાણે ઉમેદવારી પાછી ખેંચવાની પહેલેથી જાણ કર્યા વિના, કોઇ વ્યક્તિ તેમાં બેસવામાં ચૂક કરે તેવા કિસ્સામાં, તેણે/તેણીએ પરીક્ષા ઉત્તીર્ણ કરવાની એક તક ગુમાવી હોવાનું ગણાશે:

પરંતુ વાણિજ્યિક વેરા કમિશનરને એવી ખાતરી થાય કે તે/તેણી તેની કાબૂ બહારના કારણોસર ઉપર્યુક્ત રીતે જાણ કરી શકી નથી, તો તે, આવી વ્યક્તિના પક્ષે ઉપર જણાવ્યા પ્રમાણે જાણ કરવામાં થયેલી ચૂક અને તેમાંથી ઉદ્ભવતા પરિણામો બદલ મુક્તિ આપી શકશે.

૧૦. (૧) ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરવાનું ધોરણ દરેક પ્રશ્નપત્રને ફાળવવામાં આવેલા કુલ ગુણના પચાસ ટકાનું રહેશે.

(૨) ઉમેદવારને તમામ પ્રશ્નપત્રોના ઉત્તર, સરકારે પ્રસિધ્ધ કરેલા અધિનિયમ હેઠળના નિયમસંગ્રહો સહિતના વિષયના પુસ્તકો જેવા કે કોઇ ટિપ્પણીઓ અથવા કેસ લૉ વગરના ફકત અધિનિયમ, નિયમો, કોઇ ટિપ્પણીઓ અથવા કેસ લૉ વગરના પુસ્તકોની મદદથી આપવાની છૂટ આપવામાં આવશે.

(૩) એક અથવા તેથી વધુ પ્રશ્નપત્રોમાં ૬૦ ટકા અથવા તેથી વધુ ગુણ પ્રા કરનાર અસફળ ઉમેદવારને, ત્યાર પછીની પરીક્ષામાં આ પ્રશ્નપત્રોમાં ઉપસ્થિત થવામાંથી મુકિત આપવામાં આવશે:

પરંતુ આવા ઉમેદવારે જૂના નિયમો હેઠળ મેળવેલ કોઇ મુક્તિ આ નિયમો હેઠળ મેળવેલી મુક્તિ ગણાશે.

૧૧. ઉમેદવાર પરિણામ જાહેર થયાની તારીખથી ત્રીસ દિવસની અંદર ગુણની ચકાસણી માટે, સરકારી તિજોરીમાં ચુકવવાપાત્ર, પ્રશ્નપત્ર દીઠ રૂપિયા પચાસ લેખે ફી ભરીને, કચેરીના વડા મારફત ગુજરાત ઇન્સ્ટિટ્યુટ ઓફ કોમર્શિયલ ટેક્સ મેનેજમેન્ટ, અમદાવાદ-ને કોરા કાગળ પર અરજી કરી શકશે અને તેણે ચલનની એક અસલ નકલ મોકલવી જોઇશે. ગુજરાત ઇન્સ્ટિટ્યુટ ઓફ કોમર્શિયલ ટેક્સ મેનેજમેન્ટ-એ અરજી મંડળના સચિવને ગુણ ચકાસણી માટે મોકલી આપવી જોઇશે, જેઓ અરજી ચકાસી તદ્નુસાર ઉમેદવારને જાણ કરશે. કોઇપણ સંજોગોમાં, ઉત્તરવહીનું પુનઃમૂલ્યાંકન કરવામાં આવશે નહિ.

૧૨. પરીક્ષામાં સરેરાશ ૮૦% અથવા વધુ ગુણ મેળવનાર ઉમેદવારને, સરકાર વખતોવખત નક્કી કરે તેવી રોકડ રકમ પ્રોત્સાહનરૂપે આપવામાં આવશે.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે.એમ. અધ્વર્યુ,
સરકારના નાયબ સચિવ.

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"પરિશિષ્ટ ક"

(જુઓ નિયમ ૮)

પરીક્ષાનો અભ્યાસક્રમ:

પ્રશ્નપત્ર ૧	**કરવેરા સમય ૩ કલાક ગુણ: ૧૦૦**
(ક)	ગુજરાત મૂલ્યવર્ધિત વેરા અધિનિયમ, ૨૦૦૩ અને તે હેઠળ કરવામાં આવેલા નિયમો
(ખ)	અદ્યાવત કરેલો કેન્દ્રીય વેચાણવેરા અધિનિયમ, ૧૯૫૬ અને કેન્દ્ર સરકારે અને ગુજરાત સરકારે તે હેઠળ કાઢેલા નિયમો અને જાહેરનામા
(ગ)	ગુજરાત સ્થાનિક વિસ્તારોમાં નિર્દિષ્ટ માલના પ્રવેશ પર વેરા અધિનિયમ, ૨૦૦૧
પ્રશ્નપત્ર ૨	**વાણિજ્યિક કાયદો અને હિસાબો સમય ૩ કલાક ગુણ: ૧૦૦**
(ક)	ટ્રેડીંગ અને નફા અને નુકસાનના હિસાબો અને સરવૈયા તૈયાર કરવા સહિત દ્વિનોંધી નામાપદ્ધતિના સિદ્ધાંતો
(ખ)	ભારતનો માલના વેચાણ બાબતનો અધિનિયમ, ૧૯૩૦
(ગ)	ભારતનો કરાર અધિનિયમ, ૧૮૭૨,- પ્રકરણ ૧ : (કલમો ૩,૫ અને ૮) પ્રકરણ ૨ : (કલમો ૧૦, ૧૧, ૧૩, ૧૪, ૧૫, ૧૬, ૧૭, ૧૮, ૨૨ થી ૨૫ અને ૨૭) પ્રકરણ ૪ : (કલમો ૩૭ થી ૪૦, ૪૬ અને ૪૭) પ્રકરણ ૧૦ : (કલમો ૧૮૨ થી ૧૮૮, ૨૧૧, ૨૧૩ અને ૨૧૪).
પ્રશ્નપત્ર ૩	**આકારણી સમય ૩ કલાક ગુણ: ૧૦૦**
(ક)	ગુજરાત મૂલ્યવર્ધિત વેરા અધિનિયમ, ૨૦૦૩ અને તે હેઠળ કરવામાં આવેલા નિયમો
(ખ)	કેન્દ્રીય વેચાણવેરા અધિનિયમ, ૧૯૫૬ અને તે હેઠળ કરેલા નિયમો
(ગ)	ગુજરાત સ્થાનિક વિસ્તારોમાં નિર્દિષ્ટ માલના પ્રવેશ પર વેરા અધિનિયમ, ૨૦૦૧
પ્રશ્નપત્ર ૪	**ન્યાયવિષયક અને અન્ય બાબતો સમય ૩ કલાક ગુણ: ૧૦૦**
(ક)	ભારતનો પુરાવા અધિનિયમ,૧૮૭૨ પ્રકરણ ૧, ૨ (કલમ ૨૪ અને ૩૦ સિવાય), ૩, ૫ અને ૭
(ખ)	ફોજદારી કાર્યરીતિ અધિનિયમ, ૧૯૭૩ (પ્રકરણ ૧૨, પોલીસને જાણ કરવા બાબત અને તેમની તઉત્તીર્ણની સત્તા, પ્રકરણ ૨૬)
(ગ)	દીવાની કાર્યરીતિ અધિનિયમ, ૧૯૦૮ હુકમ ૨૬, ૨૭, ૨૮, ૨૯ અને ૩૧
(ઘ)	મુંબઇ જમીન મહેસૂલ અધિનિયમ, ૧૮૭૯, પ્રકરણ ૧૧, જમીન મહેસૂલની વસૂલાત અને બીજી મહેસૂલી માંગણીઓ.
પ્રશ્નપત્ર ૫	**સેવાકીય અને નાણાકીય બાબતો સમય ૩ કલાક ગુણ: ૧૦૦**
(ક)	ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨.
(૧)	ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨, સેવાની સામાન્ય શરતો
(૨)	ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨, પગાર
(૩)	ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨, પગારમાંના ઉમેરણો (પ્રકરણ ૭ સિવાય)
(૪)	ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨, મુસાફરી ભથ્થું
(૫)	ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨, સરકારી નિવાસી સગવડોનું કામકાજ
૬	ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨, ફરજ પર જોડાવાનો સમય, વિદેશ સેવાઓ, ભારત બહાર પ્રતિનિયુક્તિ, ફરજ-મોકૂફી દરમિયાન ચૂકવણી, બરતરફી અને હોદ્દા પરથી દૂર કરવાના નિયમો (પ્રકરણ ૧, ૪ અને ૬ સિવાય)
૭	રજા
૮	પેન્શન
(ખ)	ગુજરાત નાણાકીય નિયમો, ૧૯૭૧ પ્રકરણ ૧, ૨, ૪, ૬, ૮

(ગ) ૧	મુંબઇ આકસ્મિક ખર્ચ નિયમો, ૧૯૫૯, નીચેના સિવાય-
	કલમ ૧૨
	કલમ ૨૫, નિયમો ૧૦૬ થી ૧૦૮ અને ૧૧૦ થી ૧૩૯
	કલમ ૨૮
	કલમ ૩૨
	કલમ ૩૩
૨	ગુજરાત બજેટ મેન્યુઅલ (અંદાજપત્ર નિયમસંગ્રહ), નીચેના સિવાય-
	પુસ્તક નં.૧ (પ્રકરણ ૩, ૭, ૧૮) પુસ્તક નં.૨ (પ્રકરણ ૧, ૪, ૫)
૩	ગુજરાત મુલકી સેવા (વર્તણૂક) નિયમો, ૧૯૭૧ અને ગુજરાત મુલકી સેવા (શિસ્ત અને અપીલ) નિયમો, ૧૯૭૧.
પ્રશ્નપત્ર ૬	**મૂલ્યવર્ધિત વેરા અધિનિયમનો વહીવટ અને કચેરી વ્યવસ્થા સમય ૩ કલાક** **ગુણ: ૧૦૦**
	આ વિષયની પરીક્ષા એ રીતે તૈયાર કરવી જોઇશે કે જેથી રજિસ્ટ્રેશન, રિટર્ન (પત્રક), આકારણી, ચેકપોસ્ટ, વસૂલાત, રિફંડ, ગુના, ફોજદારી કામ, વગેરે જેવા મૂલ્યવર્ધિત વેરા કાયદાના વહીવટી ઉત્તીર્ણાઓને લગતી વિભાગે બહાર પાડેલી સૂચનાઓ સંબંધે ઉમેદવારની કસોટી કરી શકાય. પ્રશ્નોમાં વિભાગના માળખા, કચેરી અને કાર્યરીતિ પદ્ધતિઓ વિષે વિભાગે બહાર પાડેલી વિવિધ સુચનાઓનો પણ સમાવેશ કરી શકાય.

"પરિશિષ્ટ ખ"

(જુઓ નિયમ ૯)

અરજીનો નમૂનો

ગુજરાત ગૌણ સેવા પસંદગી મંડળ, ગાંધીનગર દ્વારા યોજાનારી વાણિજ્યિક વેરા ઇન્સ્પેકટર માટેની ખાતાકીય પરીક્ષા આપવા માટેની અરજીનો નમૂનો.

૧ અરજદારનું પૂરું નામ:
(અટક પહેલી લખવી)
(અંગ્રેજીમાં અને ગુજરાતીમાં)

૨ હોદ્દો (અંગ્રેજીમાં અને ગુજરાતીમાં):

૩ હાલમાં જ્યાં સેવા આપતા હોય તે કચેરીનું નામ:

૪ જન્મ તારીખ અને આ પરીક્ષા સમયે વય (પૂરા થયેલા વર્ષમાં):

૫ નિમણૂકની તારીખ અને સેવાના કુલ વર્ષ:
(૧) કારકૂન તરીકે:
(૨) વાણિજ્યિક વેરા નિરીક્ષક તરીકે (સીધી ભરતી થયેલ):
(૩) કારકૂન/કારકૂન-કમ-ટાઇપિસ્ટ/ગુજરાતી ટાઇપિસ્ટ/ અંગ્રેજી ટાઇપિસ્ટ તરીકે:

૬ અગાઉ પરીક્ષામાં બેઠા છે કે કેમ? એમ હોય તો,-
(ક) જેમાં બેઠા હોય તે પરીક્ષાનો મહિનો અને વર્ષ
(ખ) કોઇ મુકિત મળી છે કે કેમ? :
એમ હોય તો ગુણ-વિગત, પરીક્ષા વર્ષ અને વિષય જણાવો.
(ગ) મળેલ મુકિતનો લાભ લેવા ઇચ્છે છે કે કેમ?
(પસંદગી આખરી ગણાશે):

૭ નામ સાથે અગાઉ ઉત્તીર્ણ કરેલી પરીક્ષાના નંબર અને તારીખ:

૮ જે દરમિયાન તેણે/તેણીએ પરીક્ષા ઉત્તીર્ણ કરવાની રહેતી હોય તે તકની સંખ્યા અને સમય-મર્યાદા (પરીક્ષામાં બેસવા માટે પાત્ર થતા હોય તે તારીખ અને પાત્રતા પૂરી થતી હોય તે તારીખ જણાવો):

૯ લીધેલી તકોની સંખ્યા:

મહિનો

વર્ષ

૧૦ કોઈ વધારાની (ખાસ) તક આપવામાં આવી હોય, તો તે (જે હુકમો હેઠળ વધારાની (ખાસ) તક આપવામાં આવી હોય તેનો ક્રમાંક અને તારીખ જણાવવી અને તેની એક નકલ સાથે જોડવી):

૧૧ જરૂરી હોય તો, ફી ભરી છે કે કેમ? :
જો હા, ચલનની વિગતો અને તારીખ જણાવો.

૧૨ પરીક્ષા ઉત્તીર્ણ કરવાનો હેતુ (દા.ત. કાયમી થવું, સરકારી સેવામાં બહાલ રહેવું, બઢતી, વગેરે) :

૧૩ ખાતાકીય પરીક્ષાના નિયમો અનુસાર પરીક્ષામાં બેસવાને લાયક છે કે કેમ :

૧૪ વિશેષ નોંધ, કોઈ હોય તો :

સ્થળ :
તારીખ: (અરજદારની સહી)

યોગ્યતા પ્રમાણપત્ર

આથી પ્રમાણપત્ર આપવામાં આવે છે કે:-

(૧) ઉપરની વિગતોની ખરાઈ કરવામાં આવી છે અને તે ખરી જણાઈ છે.
શ્રી/શ્રીમતી ૨૦૦.....માં યોજાનાર પરીક્ષામાં બેસવા માટે યોગ્ય છે.

(૨) જરૂરી ફી ભરવામાં આવી છે, ચલનની નકલ બિડેલ છે.

(૩) ઉમેદવાર વધારાની (ખાસ) તક આપવામાં આવી છે, હુકમની નકલ બિડેલ છે.

(કચેરીના વડાની સહી અને હોદ્દો)

નાણા વિભાગ

જાહેરનામું.

સચિવાલય, ગાંધીનગર, : ૨૩ મે, ૨૦૧૧.

ભારતનું સંવિધાન

ક્રમાંકઃ-(જીએન-૧૬) વવક/ ૧૨૨૦૦૮/ ૨૪૦/ ઠ.૩:- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ, ગુજરાતના રાજ્યપાલ, આથી, ગુજરાત વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩, (ખાતાકીય પરીક્ષા) નિયમો, ૨૦૦૯ વધુ સુધારવા માટે નીચેના નિયમો કરે છેઃ-

૧. આ નિયમો, ગુજરાત વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩, (ખાતાકીય પરીક્ષા)(સુધારા) નિયમો, ૨૦૧૧ કહેવાશે.

૨. ગુજરાત વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩, (ખાતાકીય પરીક્ષા) નિયમો, ૨૦૦૯માં, નિયમ ૪ પછી, નીચેનો નિયમ દાખલ કરવો :-

" ૪-ક. આ નિયમોમાં ગમે તે મજકૂર હોય તેમ છતાં, જેની સિનિયર કારકુનની જગા પર બઢતી થયેલી ન હોય તેવા કારકુન અથવા ટાઈપીસ્ટ અથવા કારકુન-સહ-ટાઈપીસ્ટ અથવા જે સિનિયર કારકુને સિનિયર કારકુન તરીકે ત્રણ વર્ષની સેવા પૂરી કરી ન હોય અને જે વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩ની જગાના દ્વિતીય ઉચ્ચત્તર પગાર ધોરણ માટે હકદાર હોય તેવા કિસ્સામાં, તેને પણ વાણિજ્યિક વેરા નિરીક્ષક, વર્ગ-૩ની જગા ઉપર બઢતી માટેની ખાતાકીય પરીક્ષામાં બેસવા દેવામાં આવશે".

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે.એમ.અધ્વર્યુ,
સરકારના નાયબ સચિવ.

નાણા વિભાગ

જાહેરનામું.

સચિવાલય, ગાંધીનગર, : ૧૯મી ડિસેમ્બર, ૨૦૦૯.

ભારતનું સંવિધાન

ક્રમાંકઃ જીએન-૩૫- વવક -૧૨૨૦૦૯-૩૪૭- ઠ. ૩:- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ, ગુજરાતના રાજ્યપાલ, આથી, વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, સિનિયર કારકુન, વર્ગ ૩ની જગા માટેની ખાસ સ્પર્ધાત્મક પરીક્ષા પધ્ધતિનું નિયમન કરવા માટે જોગવાઈ કરવા નીચેના નિયમો કરે છેઃ-

૧. ટૂંકી સંજ્ઞા, આરંભ અને લાગુ પડવા બાબત.-

(૧) આ નિયમો, ગુજરાત વાણિજ્યિક વેરા, સિનિયર કારકુન, વર્ગ ૩,(ખાસ સ્પર્ધાત્મક પરીક્ષા) નિયમો, ૨૦૦૯ કહેવાશે.

(૨) તે, રાજપત્રમાં તેની પ્રસિદ્ધિની તારીખથી અમલમાં આવશે.

(૩) તે, વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, જુનિયર કારકુન, જુનિયર કારકુન-સહ-ટાઈપિસ્ટ અથવા ટાઈપિસ્ટ, વર્ગ ૩ના સંવર્ગમાં ઓછામાં ઓછા પાંચ વર્ષ સુધી કામ કર્યું હોય તેવી વ્યક્તિઓને લાગુ પડશે.

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૨. **વ્યાખ્યા.**-આ નિયમોમાં, સંદર્ભથી અન્યથા અપેક્ષિત ન હોય તો,-

(ક) "પરિશિષ્ટ" એટલે આ નિયમો સાથે જોડેલું પરિશિષ્ટ;

(ખ) "મંડળ" એટલે ગુજરાત ગૌણ સેવા પસંદગી મંડળ, ગાંધીનગર;

(ગ) "પરીક્ષા" એટલે સિનિયર કારકુન, વર્ગ ૩ની જગા પર બઢતી માટે આ નિયમો હેઠળ મંડળે યોજેલી ખાસ સ્પર્ધાત્મક પરીક્ષા;

(ઘ) "પ્રશ્નપત્ર" એટલે પરિશિષ્ટમાં નિર્દિષ્ટ કરેલા પ્રશ્નપત્રો;

૩. **ઉમેદવારોની પાત્રતા.**-પરીક્ષામાં બેસવા માગતો હોય તેવા ઉમેદવારે,-

(૧) વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, જુનિયર કારકુન અથવા જુનિયર કારકુન સહ ટાઈપિસ્ટ અથવા ટાઈપિસ્ટ, વર્ગ ૩ના સંવર્ગમાં ઓછામાં ઓછા પાંચ વર્ષ સુધી કામ કર્યું હોવું જોઈશે; અને

(૨) ઠરાવેલી ખાતાકીય પરીક્ષા પાસ કરેલી હોવી જોઈશે; અને

(૩) ભારતમાં કેન્દ્રીય અથવા રાજ્ય અધિનિયમથી અથવા તે હેઠળ સ્થપાયેલી અથવા સંસ્થાપિત યુનિવર્સિટીઓ અથવા સંસ્થાઓ પૈકી કોઈપણમાંથી અથવા સરકાર દ્વારા તે તરીકે માન્ય કરેલી અન્યકોઈપણ શૈક્ષણિક સંસ્થામાંથી અથવા યુનિવર્સિટી ગ્રાન્ટ્સ કમિશન અધિનિયમ, ૧૯૫૬ની કલમ ૩ હેઠળ ડીમ્ડ યુનિવર્સિટી તરીકે જાહેર થયેલી કોઈપણ યુનિવર્સિટીમાંથી મેળવેલી પદવી ધરાવતો હોવો જોઈશે અથવા સરકારે માન્ય કરેલી તેને સમકક્ષ લાયકાત ધરાવતો હોવો જોઈશે.

૪. **ઉમેદવારોની વિગતો દર્શાવતું પત્રક.**- વાણિજ્યિક વેરા કમિશનર કચેરીએ, દરેક વર્ષની ૩૧મી જુલાઈ પહેલાં, તે કેલેન્ડર વર્ષમાં યોજનારી પરીક્ષામાં બેસવા ઈચ્છતા પાત્ર ઉમેદવારોની વિગતો દર્શાવતું પત્રક નાણા વિભાગને મોકલવું જોઈશે.

૫. **પરીક્ષા માટેનીઅરજી.**- પરીક્ષામાં બેસવા ઈચ્છતા પાત્ર ઉમેદવારે, રાજ્ય સરકાર, વખતોવખત નક્કી કરે તેવા નમૂનામાં અને તેટલી ફી સાથે અરજી કરવી જોઈશે.

૬. **પરીક્ષા યોજવા બાબત.**-મંડળ દ્વારા પરીક્ષા સામાન્ય રીતે દર વર્ષે ઓક્ટોબર મહિનામાં અમદાવાદ/ ગાંધીનગર ખાતે યોજાશે.

૭. **ઉમેદવારોએ પરીક્ષામાં પોતાના ખર્ચે બેસવા બાબત.**- ઉમેદવારે સ્વ-ખર્ચે પરીક્ષામાં બેસવાનું રહેશે.

૮. **પ્રશ્નપત્રો અને અભ્યાસક્રમ.**-પરીક્ષાનો અભ્યાસક્રમ પરિશિષ્ટમાં નિર્દિષ્ટ કર્યા પ્રમાણેનો રહેશે.

૯. **પરીક્ષાનું માધ્યમ.**- પ્રશ્નપત્ર ૨ સિવાય પરીક્ષાનું માધ્યમ ગુજરાતી રહેશે. પ્રશ્નપત્ર ૨ માટે પરીક્ષાનું માધ્યમ અંગ્રેજી રહેશે.

૧૦. **પરીક્ષા ઉત્તીર્ણ કરવા માટેનું લાયકી ધોરણ .**-પરીક્ષા ઉત્તીર્ણ કરવા માટેનું લાયકી ધોરણ, મંડળ વખતોવખત નક્કી કરે તે પ્રમાણેનું રહેશે.

૧૧. **પરિણામની પ્રસિધ્ધિ .**- મંડળ, રાજપત્રમાં પરીક્ષાનું પરિણામ પ્રસિધ્ધ કરશે અને તેની જાણ સરકારને પણ કરશે.

૧૨. **પરીક્ષકોની નિમણૂક અને પરીક્ષાની કાર્યરીતિ અને નિયમન.**- મંડળ, પોતે આ અર્થે અપનાવેલી કાર્યરીતિને અને વિષયને લગતાકોઈ સરકારી હુકમો અથવા આદેશો, હોય તો તેને અનુરૂપ પરીક્ષકોની નિમણૂક અને પરીક્ષાના સંચાલન સંબંધી તમામ બાબતોનું નિયમન કરશે.

૧૩. **સફળ ઉમેદવારોની બઢતી.**- નિયમ ૧૧ હેઠળ જાહેર કરેલા પરિણામના આધારે સફળ ઉમેદવારો બઢતીને પાત્ર થશે અને માંગણીપત્રો અનુસાર તેમની વાણિજ્યિક વેરા વિભાગના કમિશનરની કચેરીની તાબાની સેવામાં સિનિયર કારકુન, વર્ગ ૩ તરીકે નિમણૂક કરવામાં આવશે..

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પરિશિષ્ટ

(જુઓ નિયમ ૮)

સિનિયર કારકુન, વર્ગ ૩ની જગા માટે ખાસ સ્પર્ધાત્મક પરીક્ષાનો અભ્યાસક્રમ

પ્રશ્નપત્ર		અભ્યાસક્રમ	ગુણ
પ્રશ્નપત્ર- ૧ ગુજરાતી ૧૦૦ ગુણ (પુસ્તકો વિના) સમયગાળો: ૩.૦૦ કલાક		(૧) અર્થગ્રહણ (કોમ્પ્રિહેન્શન): ફકરા પરથી પ્રશ્નોના ઉત્તરો (૨) સંક્ષેપ લેખન (૩) અહેવાલ લેખન (૪) પત્ર લેખન (૫) નિબંધ (૪૦૦ શબ્દોથી વધુ નહિ) (૬) વિચાર વિસ્તાર (૭) વ્યાકરણ (ક) સંયોજક (ખ) શબ્દલેખન (ગ) શબ્દસમૂહો (ઘ) કહેવતો (ચ) રૂઢિપ્રયોગો (છ) જોડણી (૮) અંગ્રેજીમાંથી ગુજરાતીમાં ભાષાંતર	૧૦ ગુણ ૧૦ ગુણ ૧૦ ગુણ ૧૦ ગુણ ૨૦ ગુણ ૧૦ ગુણ ૨૦ ગુણ ૧૦ ગુણ
પ્રશ્નપત્ર- ૨ અંગ્રેજી ૧૦૦ ગુણ (પુસ્તકો વિના) સમયગાળો: ૩.૦૦ કલાક		(૧) નિબંધ (૩૦૦ શબ્દોથી વધુ નહિ) (વિષયો સરકારી કામકાજ સંબંધી હોઇ શકે) (૨) સંક્ષેપ લેખન (૩) અહેવાલ લેખન (૪) પત્ર લેખન (૫) ગુજરાતીમાંથી અંગ્રેજીમાં ભાષાંતર (૬) વ્યાકરણ (ક) કાળના ઉપયોગો (ખ) શબ્દસમૂહો, ક્રિયાપદો, રૂઢિપ્રયોગો અને શબ્દભંડોળ (ગ) કર્તરી અને કર્મણી પ્રયોગો બદલવા (ઘ) પ્રત્યક્ષ અને પરોક્ષ વાક્ય પ્રયોગ	૨૫ ગુણ ૧૫ ગુણ ૧૦ ગુણ ૧૫ ગુણ ૧૦ ગુણ ૧૦ ગુણ ૨૦ ગુણ

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પ્રશ્નપત્ર-૩ કર વેરા અને સામાન્ય અભ્યાસ ૧૦૦ ગુણ (પુસ્તકો વિના) સમયગાળો:૩.૦૦ કલાક		**ભાગ-૧** (ક) મૂલ્યવર્ધિત વેરા અધિનિયમ -૨૦૦૩ અને તે હેઠળ કરેલા નિયમો (ખ) કેન્દ્રીય વેચાણ વેરા અધિનિયમ-૧૯૫૬ અને તે હેઠળ કરેલા નિયમો. (ગ) હિસાબ-લેખન અને હિસાબ-તપાસણી (ઓડિટીંગ)નો કાયદો અને સિદ્ધાંતો. **ભાગ-૨** સામાન્ય અભ્યાસ	૩૦ ગુણ. ૩૦ ગુણ. ૧૫ ગુણ. ૨૫ ગુણ

નોંધ:

(૧) **ગુજરાતીના પ્રશ્નપત્રનું ધોરણ ગુજરાત માધ્યમિક અને ઉચ્ચતર માધ્યમિક શિક્ષણ બોર્ડના ૧૨મા ધોરણના ગુજરાતી વિષય (ઉચ્ચ સ્તર)ને સમકક્ષ રહેશે.**

(૨) **અંગ્રેજીના પ્રશ્નપત્રનું ધોરણ ગુજરાત માધ્યમિક અને ઉચ્ચતર માધ્યમિક શિક્ષણ બોર્ડના ૧૨મા ધોરણના અંગ્રેજી વિષય (નિમ્ન સ્તર)ને સમકક્ષ રહેશે.**

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,
કે.એમ.અધ્વર્યુ,
સરકારના નાયબ સચિવ.

નાણા વિભાગ

જાહેરનામું.

સચિવાલય ગાંધીનગર, : ૩૧મી ડિસેમ્બર,૨૦૦૯

ભારતનું સંવિધાન,

ક્રમાંક: જીએન-૩૮/વવક-૧૨૦૯-૩૪૮-ઠ-૩ :- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ, ગુજરાતના રાજ્યપાલ, આથી, ગુજરાત વાણિજ્યિક વેરા સેવામાં, સિનિયર કારકુન, વર્ગ-૩ની જગા ઉપર ભરતી માટે સ્પર્ધાત્મક પરીક્ષાની પદ્ધતિ સંબંધી જોગવાઈ કરવા માટે નીચેના નિયમો કરે છે:-

૧. **ટૂંકી સંજ્ઞા** .- આ નિયમો ગુજરાત વાણિજ્યિક વેરા,સિનિયર કારકુન વર્ગ-૩ (સ્પર્ધાત્મક પરીક્ષા) નિયમો, ૨૦૦૯ કહેવાશે.

૨. **વ્યાખ્યા** .- આ નિયમોમાં, સંદર્ભથી અન્યથા અપેક્ષિત ન હોય તો,-

(ક) "મંડળ " એટલે ગુજરાત ગૌણ સેવા પસંદગી મંડળ,ગાંધીનગર;

(ખ) "પરીક્ષા " એટલે વાણિજ્યિક વેરા કમિશનરની કચેરીની તાબાની સેવામાં, સિનિયર કારકુન, વર્ગ-૩ની જગા પર ભરતી માટેની સ્પર્ધાત્મક પરીક્ષા;

(ગ) "સરકાર " એટલે ગુજરાત સરકાર;

(ઘ) "અનુસૂચિ " એટલે આ નિયમો સાથે જોડેલી અનુસૂચિ.

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૩. **પરીક્ષા યોજવા બાબત .-**

(૧) મંડળ, સરકાર તરફથી માંગણી મળ્યા પછી, ગુજરાત વાણિજ્યિક વેરા સેવાની તાબાની સેવામાં, સિનિયર કારકુન, વર્ગ-૩ની જગા પર ભરતી માટે ઉમેદવારોની પંસંદગી માટે સ્પર્ધાત્મક પરીક્ષા યોજશે.

(૨) મંડળ , પરીક્ષા યોજવા માટેની તારીખ, સમય અને સ્થળો નક્કી કરશે.

૪.**પરીક્ષાની રીત.**- અનુસૂચિમાં નિર્દિષ્ટ કરેલી રીતે પરીક્ષા યોજવામાં આવશે.

૫. **અભ્યાસક્રમ .**- મંડળ દરેક વિષયના અભ્યાસક્રમની વિગતો નક્કી કરશે અને આવો અભ્યાસક્રમ અરજીપત્રકની સાથે ઉમેદવારોને પૂરો પાડવામાં આવશે.

૬ . **પરીક્ષાનું માધ્યમ .-**

(૧) પ્રશ્નપત્ર-૨ સિવાય પરીક્ષાનું માધ્યમ ગુજરાતી રહેશે ;

(૨) પ્રશ્નપત્ર-૨ના ઉત્તરો અંગ્રેજીમાં આપવાના રહેશે .

૭. **પરીક્ષામાં ઉપસ્થિત રહેવા બાબત .**- ઉમેદવારોએ સ્વખર્ચે પરીક્ષામાં ઉપસ્થિત રહેવાનું રહેશે.

૮.**પરીક્ષા માટેની અરજી .**- (૧) પરીક્ષામાં બેસવા માંગતા ઉમેદવારે, સરકાર નક્કી કરે તેટલી ફી સાથે મંડળ ઠરાવે તેવા નમૂનામાં અને તેટલી સમયમર્યાદામાં અરજી કરવી જોઈશે.

(૨) મંડળ નિર્દિષ્ટ કરે તેવી રીતે ફી ભરવી જોઈશે અને એકવાર ભરેલી ફી પરત આપવામાં આવશે નહિ .

(૩) અરજી પાછી ખેંચવા અંગેની ઉમેદવારની વિનંતી કોઈપણ સંજોગોમાં સ્વીકારવામાં આવશે નહિ.

૯.**ઉમેદવારની નિમણૂક .**- (૧) ઉમેદવારની સિનિયર કારકૂન તરીકેની નિમણૂક, ભરતી નિયમોની જોગવાઈઓને અધીન રહેશે.

(૨)ઉમેદવાર, તેને આપેલી નિમણૂક પર ન જોડાય તો,તેનું નામ મંડળે ભલામણ કરેલા ઉમેદવારોની યાદીમાંથી કમી કરવામાં આવશે.

૧૦.**પાત્રતા માટેની શરત .**- (૧) ઉમેદવાર,-

(ક) ભારતનો નાગરિક, અથવા

(ખ) નેપાળનો પ્રજાજન, અથવા

(ગ) ભૂતાનનો પ્રજાજન, અથવા

(ઘ) પાકિસ્તાન, મ્યાનમાર, શ્રીલંકા, કેન્યા, યુગાન્ડાના પૂર્વ આફ્રિકાના દેશો, ટાન્ઝાનિયા, ઝામ્બિયા, મલાવી, ઝૈર, ઈથીઓપીઆના અને વિયેટનામના સયુંક્ત ગણરાજ્યોમાંથી ભારતમાં કાયમી વસવાટ કરવાના ઈરાદાથી સ્થળાંતર કરીને આવેલી ભારતીય મૂળની વ્યક્તિ ન હોય તો, પરીક્ષામાં પ્રવેશ માટે લાયક થશે નહિ :

પરંતુ ખંડો (ખ), (ગ) અને (ઘ) વર્ગના ઉમેદવારે સરકારે કાઢી આપેલું પાત્રતા પ્રમાણપત્ર પૂરુ પાડવું જોઈશે.

(૨). જે ઉમેદવારને પાત્રતા પ્રમાણપત્ર રજૂ કરવા ફરમાવ્યું હોય તે ઉમેદવારને મંડળ દ્વારા યોજાતી પરીક્ષામાં ઉપસ્થિત થવા દેવામાં આવશે અને તેને પાત્રતા પ્રમાણપત્ર રજૂ કરવાને અધીન રહીને તેને હંગામી નિમણૂક પણ આપી શકાશે.

૧૧.**એકાધિક લગ્નના કારણે નિમણૂક માટેની ગેરલાયકાત .**-

(૧)(ક) જેના પતિ/પત્ની હયાત હોય તેવી વ્યક્તિ સાથે લગ્ન કરેલું હોય અથવા લગ્નનો કરાર કરેલો હોય,અથવા

(ખ) જેના પતિ/પત્ની હયાત હોય તેણે કોઈ વ્યક્તિ સાથે લગ્ન કરેલું હોય

અથવા લગ્નનો કરાર કરેલો હોય,

એવી કોઈપણ વ્યક્તિ તે જગા પર નિમણૂક માટે લાયક થશે નહિ :

પરંતુ તત્સમયે અમલમાં હોય એવા લગ્ન કોઈ કાયદાની જોગવાઈઓને અધીન રહીને,રાજ્ય સરકારને એવી ખાતરી થાય કે એવા લગ્ન કરવા માટેના તે વ્યક્તિને ખાસ કારણો છે તો આ પેટા-નિયમના અમલમાંથી કોઈ વ્યક્તિને મુક્તિ આપી શકશે.

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(૨) ઉમેદવારે અરજીમાં તે અથવા,યથાપ્રસંગ, તેણી પરિણીત છે કે નહિ અને પુરુષ ઉમેદવારના કિસ્સામાં તેને એક કરતાં વધુ પત્ની હયાત છે કે નહિ અને સ્ત્રી ઉમેદવારના કિસ્સામાં તેણીએ જેની બીજી પત્ની હયાત હોય એવા પુરુષ સાથે લગ્ન કરેલ છે કે નહિ તે જાહેર કરવાનું રહેશે.

૧૨. વયમર્યાદા .-ઉમેદવારની વયમર્યાદા, ભરતી નિયમોમાં ઠરાવ્યા પ્રમાણેની રહેશે,અને મંડળ દ્વારા તે જાહેરાતમાં નિર્દિષ્ટ કરવામાં આવશે.

૧૩. શૈક્ષણિક લાયકાત .- (૧) શૈક્ષણિક લાયકાત ,ભરતી નિયમોમાં ઠરાવ્યા પ્રમાણેની રહેશે, અને મંડળ દ્વારા તે જાહેરાતમાં નિર્દિષ્ટ કરવામાં આવશે: પરંતુ નિર્દિષ્ટ કરેલી એવી શૈક્ષણિક પરીક્ષા કે જેને ઉત્તીર્ણ કરવાથી તે નિયમ ૩માં ઠરાવેલી પરીક્ષા માટે શૈક્ષણિક રીતે લાયક ઠરતો હોય તેમાં ઉપસ્થિત થયેલો ઉમેદવાર પણ પરીક્ષામાં પ્રવેશ માટે લાયક ગણાશે.

(૨) મંડળે નિમણૂક માટે જેની ભલામણ કરેલી હોય તેવા ઉમેદવારે નિર્દિષ્ટ શૈક્ષણિક પરીક્ષા ઉત્તીર્ણ કર્યાની સાબિતી રજૂ કરવાની રહેશે. નિર્દિષ્ટ શૈક્ષણિક પરીક્ષા ઉત્તીર્ણ કર્યાની સાબિતી રજૂ ન કરે તેવો ઉમેદવાર નિમણૂક માટે લાયક થશે નહિ.

૧૪.મંડળનો નિર્ણય આખરી ગણાશે .- પરીક્ષામાં પ્રવેશ માટે ઉમેદવારની યોગ્યતા અંગેનો મંડળનો નિર્ણય આખરી ગણાશે અને મંડળે જેને પરીક્ષામાં ઉપસ્થિત થવાની પરવાનગી આપી ન હોય તેવા ઉમેદવારને પરીક્ષામાં ઉપસ્થિત થવા દેવામાં આવશે નહિ.

૧૫.પરીક્ષા અંગેના નિયંત્રણો .- (૧)ઉમેદવારે તમામ પ્રશ્નપત્રોના ઉત્તરો સ્વહસ્તાક્ષરમાં આપવાના રહેશે.તેમ છતાં, અંધ ઉમેદવારોને, મંડળ તે અર્થે આપે તેવી સૂચનાઓને અધીન રહીને લહિયાની મદદથી પરીક્ષામાં લખવા દેવામાં આવશે.

(૨) (ક) ઉમેદવારને તેની સાથે સેલ્યુલર ફોન,પેજર અથવા બીજી કોઈ મોબાઈલ કોમ્યુનિકેશન ડિવાઈસ લઈ જવાની પરવાનગી આપવામાં આવશે નહિ.

(ખ) ઉમેદવારને પરીક્ષામાં કેલ્કયુલેટરનો ઉપયોગ કરવા દેવામાં આવશે નહિ.

૧૬.ગુણવત્તા યાદી તૈયાર કરવી .- મંડળે દરેક ઉમેદવારને પરીક્ષાને અંતે મળેલા આખરી ગુણને આધારે ગુણવત્તા યાદી તૈયાર કરવી જોઈશે અને મંડળે જેટલી સંખ્યામાં ખાલી જગાઓ ભરવાની હોય તેટલા લાયક ઉમેદવારોની નિમણૂક માટે તે જ ક્રમમાં ભલામણ કરવી જોઈશે:

પરંતુ અનુસુચિત જાતિ, અનુસુચિત આદિજાતિ,અને સામાજિક અને શૈક્ષણિક રીતે પછાત વર્ગ(વિચરતી જાતિઓ અને વિમુક્ત જાતિઓ સહિત)ના ઉમેદવારો માટે અનામત રાખેલી ખાલી જગાઓ, સામાન્ય વર્ગના ઉમેદવારો માટે ઠરાવેલા લાયકી ગુણના આધારે ભરી ન શકાય તો મંડળ અનામત જગાઓમાંની ઘટને પૂરી કરવા લાયકી ગુણના ધોરણમાં છૂટછાટ આપી શકશે.

૧૭. પરીક્ષાનું પરિણામ .- (૧)મંડળ,એક જ યાદીમાં પરીક્ષાનું પરિણામ પ્રસિધ્ધ કરશે.

(૨)(ક) સિનિયર કારકૂનની જગા પર નિમણૂક માટે સરકારને જેમના નામોની ભલામણ કરવાની હોય તેવા ઉમેદવારોનું પરિણામ, બેઠક નંબર અને દરેક ઉમેદવારે મેળવેલા ગુણની સાથે ઉમેદવારોના ગુણવત્તા ક્રમમાં ગોઠવવું જોઈશે .

(ખ) મંડળે, નામ, બેઠક નંબર અને દરેક ઉમેદવારે મેળવેલા ગુણ સહિત અસફળ ઉમેદવારોનું પરિણામ પણ તેના નોટિસ બોર્ડ પર પ્રદર્શિત કરવું જોઈશે.

(૩) મંડળે, એવી રીતે રાજપત્રમાં પ્રસિધ્ધ કરેલા પરિણામની એક નકલ સરકારને મોકલી આપવી જોઈશે.

૧૮. પરીક્ષાના ગુણની ફેરચકાસણી .- **પરીક્ષાના પોતાના ગુણની ફેરચકાસણી કરાવવાની ઈચ્છા હોય તે ઉમેદવાર, દરેક પ્રશ્નપત્ર માટે મંડળ નક્કી કરે તેટલી ફી સાથે પરીક્ષાનું પરિણામ જાહેર થયાની તારીખથી પંદર દિવસની મુદતની અંદર મંડળને અરજી કરી શકશે.**

૧૯. સરકારને પરિણામ મોકલવા બાબત .- **મંડળે, પરિણામની જાહેરાત થયે, અનુસૂચિત જાતિઓ, અનુસૂચિત આદિજાતિઓ અથવા સામાજિક અને શૈક્ષણિક રીતે પછાત વર્ગો,અથવા વિચરતી જાતિઓ અને વિમુક્ત જાતિઓના ઉમેદવારો સહિત નિમણૂક માટે ભલામણ કરેલા ઉમેદવારોની યાદી અને તેઓની જન્મ તારીખો,લાયકાતો અને રાજ્ય સરકાર આદેશ આપે તેવી બીજી વિગતો સરકારને મોકલી આપવી જોઈશે.**

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૨૦. પરીક્ષામાં માત્ર સફળ થવાથી જ નિમણૂક અંગેનો કોઈ હક મળશે નહિ .- પરીક્ષામાં માત્ર સફળ થવાથી જ નિમણૂક અંગેનો કોઈ હક મળશે નહિ અને સરકારને જરૂરી જણાય તેવી તપાસ કર્યા પછી, જગા પર નિમણૂક માટે ઉમેદવાર તમામ રીતે યોગ્ય છે એવી ખાતરી થાય તે સિવાય કોઈ ઉમેદવારને જગા પર નીમી શકાશે નહિ.

૨૧. તબીબી ચકાસણી .-પસંદ થયેલા ઉમેદવારે સરકારે આ અર્થે કરેલા નિયમો અનુસાર તબીબી ચકાસણીમાં સફળ થવાનું રહેશે.

૨૨. અજમાયશની મુદત .-પસંદ થયેલો ઉમેદવાર એક વર્ષની મુદત માટે અજમાયશ પર રહેશે. સરકાર આ અર્થે કરેલા નિયમો અનુસાર અજમાયશની મુદત લંબાવી શકાશે.

૨૩. તાલીમ અને પરીક્ષા .- પસંદ થયેલા ઉમેદવારે સરકાર ઠરાવે તેવી તાલીમ લેવાની રહેશે અને તેવી પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે.

૨૪. શિસ્તવિષયક પગલાં .- જે ઉમેદવાર,-

(૧) કોઈપણ સાધનો દ્વારા પોતાની ઉમેદવારી માટે સહાય મેળવવા ,અથવા

(૨) ખોટું વ્યક્તિત્વ ધારણ કરવા ,અથવા

(૩) કોઈ વ્યક્તિને ખોટું વ્યક્તિત્વ ધારણ કરાવવા ,અથવા

(૪) બનાવટી દસ્તાવેજો અથવા ચેડાં કરેલા હોય તેવા દસ્તાવેજો રજૂ કરવા,અથવા

(૫) ભૂલવાળા અથવા ખોટાં અથવા કોઈ મહત્વની માહિતી છૂપાવતા નિવેદનો કરવા , અથવા

(૬)પરીક્ષા માટેની તેની ઉમેદવારીના સંબંધમાં કોઈ બીજી અનિયમિત અથવા અયોગ્ય રીતો અપનાવવા, અથવા

(૭)પરીક્ષા દરમિયાન ગેરવાજબી સાધનોનો ઉપયોગ કરવા,અથવા

(૮)સંદિગ્ધ ભાષા અથવા લખાણમાં બિભત્સ બાબત સહિત અસંબંધિત બાબત લખવા, અથવા

(૯)પરીક્ષા ખંડમાં કોઈ બીજી રીતે ગેરવર્તણૂક કરવા, અથવા

(૧૦) પરીક્ષાના સંચાલન માટે મંડળે કામે રાખેલ સ્ટાફને પરેશાની કરવા અથવા શારીરિક નુકસાન પહોંચાડવા ,અથવા

(૧૧) પૂર્વવર્તી ખંડોમાં નિર્દિષ્ટ તમામ અથવા તે પૈકી કોઈ કૃત્ય કરવાનો પ્રયત્ન કરવા અથવા યથાપ્રસંગ, તેમાં મદદગારી કરવા ; અથવા

(૧૨) પરીક્ષા આપવાની તેને પરવાનગી આપતા તેના પ્રવેશ પ્રમાણપત્રની સાથે ઉમેદવારોને આપેલી સૂચનાઓ પૈકીની કોઈનો ભંગ કરવા બદલ દોષિત હોય અથવા મંડળે તેને દોષિત હોવાનું જાહેર કરેલ હોય તો, તે ઉમેદવાર ફોજદારી કાર્યવાહીને પાત્ર થવા ઉપરાંત,-

(ક) જે પરીક્ષાનો તે ઉમેદવાર હોય તેમાંથી મંડળ દ્વારા ગેરલાયક ઠરાવવાને પાત્ર થશે.; અથવા

(ખ)(૧) મંડળ તેમના દ્વારા સીધી પસંદગી માટેની કોઈપણ પરીક્ષામાં ઉપસ્થિત થવામાંથી; અથવા

(૨) રાજ્ય સરકાર દ્વારા તેના હેઠળની કોઈ નોકરીમાંથી,

કાયમીપણે અથવા નિર્દિષ્ટ મુદત માટે બાકાત રાખવાને પાત્ર થશે :

પરંતુ ઉમેદવારને તેને માટે પોતે જે કંઈ લેખિતમાં રજૂઆત કરવા માંગતો તેની તક આપ્યા સિવાય ખંડ(ક) અથવા ખંડ(ખ) હેઠળની કોઈ શિક્ષા કરી શકાશે નહિ, અથવા

(ગ) જો તે સરકારી સેવામાં હોય તો સંબંધિત નિયમો હેઠળના શિસ્તવિષયક પગલાંને પાત્ર થશે.

અનુસૂચિ
(જુઓ નિયમ ૪)

સિનિયર કારકૂન,વર્ગ ૩ની જગા પરની ભરતી માટેની સ્પર્ધાત્મક પરીક્ષા માટેનો અભ્યાસક્રમ.

અનુક્રમાંક	પ્રશ્નપત્ર	વિષય	ગુણ	સમયગાળો
૧.	પ્રશ્નપત્ર-૧	ગુજરાતી	૧૦૦ ગુણ	ત્રણ કલાક
૨.	પ્રશ્નપત્ર-૨	સામાન્ય અંગ્રેજી	૧૦૦ ગુણ	ત્રણ કલાક
૩.	પ્રશ્નપત્ર-૩	સામાન્ય અભ્યાસ	૧૦૦ ગુણ	ત્રણ કલાક

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નોંધ :-

૧. ગુજરાતી પ્રશ્નપત્રનું ધોરણ,ગુજરાત માધ્યમિક અને ઉચ્ચત્તર માધ્યમિક શિક્ષણ બોર્ડના બારમા ધોરણના ગુજરાતી વિષય(ઉચ્ચ સ્તર)ની સમકક્ષ રહેશે.

૨. સામાન્ય અંગ્રેજી પ્રશ્નપત્રનું ધોરણ,ગુજરાત માધ્યમિક અને ઉચ્ચત્તર માધ્યમિક શિક્ષણ બોર્ડના બારમા ધોરણના અંગ્રેજી વિષય(નિમ્ન સ્તર)ની સમકક્ષ રહેશે.

૩. સામાન્ય અભ્યાસના પ્રશ્નપત્રનું ધોરણ અને અભ્યાસક્રમની વિષયવસ્તુ,પદવી સ્તરના રહેશે.

૪.દરેક પ્રશ્નપત્રનો અભ્યાસક્રમ,મંડળ ઠરાવે અને જાહેર કરે તેવો રહેશે.

૫. પ્રશ્નપત્ર-૨ સિવાયના પ્રશ્નપત્રો ગુજરાતીમાં તૈયાર કરવામાં આવશે.

૬ પરીક્ષા માટેના પ્રશ્નપત્રો વર્ણનાત્મક પણ હેતુલક્ષી પ્રકારના રહેશે.

૭. અંધ ઉમેદવારોને દરેક પ્રશ્નપત્ર દીઠ ત્રીસ મિનિટનો વધારાનો સમય આપવામાં આવશે.

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,

કે. એમ. અધ્વર્યુ,

સરકારના નાયબ સચિવ.

નાણા વિભાગ

જાહેરનામું.

સચિવાલય,ગાંધીનગર, : ૧લી મે, ૨૦૦૯.

ભારતનું સંવિધાન

ક્રમાંકઃ જીએન-૧૩-વવક-૧૨૨૦૦૮/૧૫૯૮/ઠ.૩ :- ભારતના સંવિધાનની કલમ ૩૦૯ના પરંતુકથી મળેલી સત્તાની રૂએ અને આ અર્થે કરેલા તમામ નિયમો રદ કરીને, ગુજરાતના રાજ્યપાલ, આથી, વાણિજ્યિક વેરા ખાતામાં, તાબાની સેવામાં, સિનિયર કારકુન, વર્ગ-૩ની જગા ઉપર નીમાયેલી વ્યકિતઓની સેવાની શરતો, જ્યાં સુધી ખાતાકીય પરીક્ષા ઉત્તીર્ણ કરવાને સંબંધ ધરાવે છે તેટલે સુધી, તેનું નિયમન કરવા માટે જોગવાઈ કરવા નીચેના નિયમો કરે છેઃ-

૧. (૧) આ નિયમો, ગુજરાત વાણિજ્યિક વેરા સેવા, સિનિયર કારકુન પરીક્ષા, નિયમો, ૨૦૦૯ કહેવાશે.

(૨) તે વાણિજ્યિક વેરા ખાતામાં કારકુનો,ગુજરાતી ટાઈપિસ્ટ,અંગ્રેજી ટાઈપિસ્ટ , કારકુન-સહ- ટાઈપિસ્ટ અને સિનિયર કારકુન તરીકે બઢતીથી અથવા અન્યથા નીમાયેલી વ્યકિતઓને લાગુ પડશેઃ

પરંતુ આવી કોઈ વ્યકિતએ જૂના નિયમો હેઠળ નિયત તારીખ પહેલાં સંબંધિત પરીક્ષા ઉત્તીર્ણ કરી હોય અથવા સંબંધિત પરીક્ષા ઉત્તીર્ણ કરવામાંથી જેને મુકિત આપેલી હોય તેવી વ્યકિતને, આ નિયમોમાં જોગવાઈ કરેલી પરીક્ષા ઉત્તીર્ણ કરવાની જરૂર રહેશે નહિઃ

વધુમાં, આવી કોઈ વ્યકિતએ, પરીક્ષા ઉત્તીર્ણ કરવા માટે નિયત તારીખ પહેલાં જૂના નિયમો હેઠળ ઠરાવેલી તમામ તકોનો લાભ અગાઉ લીધેલો હોય તો તેને/તેણીને, જેઓએ તેના/તેણી કરતાં વહેલી પરીક્ષા ઉત્તીર્ણ કરી હોય અને ઉપલી જગા પર નિયમિત રીતે બઢતી મેળવેલી હોય તેવી તમામ વ્યકિતઓ ઉપર તે/તેણી સિનિયોરીટીનો દાવો કરવા હકદાર થશે નહિ અને તેમનાથી તે/તેણી જુનિયર થશે એ શરતને અધીન રહીને આ નિયમો હેઠળ પરીક્ષા ઉત્તીર્ણ કરવા માટે એક વધારાની તક આપવામાં આવશે, જેનો લાભ આ નિયમો હેઠળ યોજનારી પ્રથમ પરીક્ષામાં લેવાનો રહેશે,

૨. આ નિયમોમાં, સંદર્ભથી અન્યથા અપેક્ષિત હોય તે સિવાય ,-

(ક) "પરિશિષ્ટ" એટલે આ નિયમો સાથે જોડેલું પરિશિષ્ટ;

(ખ) "નિયત તારીખ" એટલે આ નિયમો જે તારીખે અમલમાં આવશે તે તારીખ;

(ગ) "મંડળ" એટલે ગુજરાત ગૌણ સેવા પસંદગી મંડળ,ગાંધીનગર;

(ઘ) "સીધી ભરતી થયેલી વ્યક્તિ" એટલે નિમ્ન જગામાંથી બઢતીથી હોય તે સિવાય સિનિયર કારકુન તરીકે નીમાયેલી વ્યકિત;

(ચ) "પરીક્ષા" એટલે સિનિયર કારકુનના સંવર્ગ માટે આ નિયમો હેઠળ ઠરાવેલી ખાતાકીય પરીક્ષા,જેનો અભ્યાસક્રમ પરિશિષ્ટ 'ક'માં નિર્દિષ્ટ કરેલ છે; –

(છ) "જૂના નિયમો" એટલે નિયત તારીખની તરત પહેલાં અમલમાં હોય તેવા કારકુન, ટાઈપિસ્ટ, સિનિયર કારકુન અને વેચાણવેરા નિરીક્ષક માટેની ખાતાકીય પરીક્ષા માટેના નિયમો;

(જ) "સિનિયર કારકુન" એટલે વાણિજ્યિક વેરા ખાતામાં, સિનિયર કારકુન, વર્ગ-૩;

(ઝ) "નિર્દિષ્ટ તકો" એટલે આ નિયમોમાં નિર્દિષ્ટ કરેલી તકોની સંખ્યા, જેમાં વ્યકિતએ પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે;

(ટ) "નિર્દિષ્ટ મુદત" એટલે આ નિયમોમાં નિર્દિષ્ટ કરેલી મુદત, જેમાં વ્યકિતએ પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે;

૩. નિયમ ૫ની જોગવાઈને અધીન રહીને,

(૧) સિનિયર કારકુન તરીકે બઢતી સિવાય અન્યથા નીમાયેલી દરેક વ્યક્તિએ તેની અજમાયશની મુદત દરમિયાન ખાતામાં પૂર્વ-સેવા તાલીમ લેવાની રહેશે અને પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે:

પરંતુ સિનિયર કારકુન તરીકે બઢતી સિવાય અન્યથા નીમાયેલી વ્યક્તિના કિસ્સામાં, આ નિયમમાં જોગવાઈ કરેલી પરીક્ષા ઉત્તીર્ણ કરવા માટેની મુદત, યથાપ્રસંગ,બીજી પરીક્ષા યોજવાની તારીખ પહેલાં પૂરી થઈ જાય, તો, સદરહુ મુદત, એવી રીતે યોજવાની બીજી પરીક્ષાના પરિણામની જાહેરાતની તારીખ સુધી લંબાવવામાં આવેલી છે તેમ ગણાશે.

(૨) સિનિયર કારકુન તરીકે બઢતી સિવાય અન્યથા નીમાયેલી કોઈપણ વ્યક્તિ આ નિયમો હેઠળની પરીક્ષા ઉત્તીર્ણ કરવામાં નિષ્ફળ જાય તો તેની સેવાઓ સમાપ્ત કરવામાં આવશે :

પરંતુ આવી કોઈ વ્યક્તિના કિસ્સામાં, વાણિજ્યક વેરા કમિશનરને એવી ખાતરી થાય કે, તે/તેણી પોતાના કાબૂ બહારના કારણોસર છેલ્લી તકમાં પરીક્ષા ઉત્તીર્ણ કરી શકી નથી, તો વાણિજ્યક વેરા કમિશનર, કારણોની લેખિતમાં નોંધ કરીને, તેને/તેણીને, સરકાર નક્કી કરે તેટલી પરીક્ષા ફી ચુકવીને પરીક્ષામાં બેસવાની વધુ એક તક આપી શકશે:

વધુમાં તે/તેણી, તેના/તેણીનાથી વહેલી પરીક્ષા ઉત્તીર્ણ કરી હોય અને વહેલી બઢતી મેળવી હોય તેવી સીધી ભરતી કરેલી વ્યક્તિઓના સંબંધમાં તેની/તેણીની સિનિયોરિટી ગુમાવશે.

૪. સિનિયર કારકુનની જગા પર બઢતી મેળવવાને લાયક થવા માટે,-

(૧) કારકુન, અથવા ગુજરાતી ટાઈપિસ્ટ અથવા અંગ્રેજી ટાઈપિસ્ટ અથવા કારકુન-સહ- ટાઈપિસ્ટ-એ,નિર્દિષ્ટ મુદતમાં અને નિર્દિષ્ટ તકોમાં સિનિયર કારકુનના સંવર્ગમાં બઢતી માટેની પરીક્ષા ઉત્તીર્ણ કરવાની રહેશે:

પરંતુ પરીક્ષામાં બેસવા માટે પાત્ર થવા માટે તેણે/તેણીએ, કારકુન અથવા ગુજરાતી ટાઈપિસ્ટ અથવા અંગ્રેજી ટાઈપિસ્ટ અથવા,યથાપ્રસંગ, કારકુન-સહ- ટાઈપિસ્ટ તરીકેની નિમણૂકની તારીખથી ઓછામાં ઓછી બે વર્ષની સેવા પૂરી કરેલી હોવી જોઈશે.

(૨) તે/તેણી નિર્દિષ્ટ મુદતમાં પરીક્ષા ઉત્તીર્ણ કરવામાં નિષ્ફળ જાય તો,એવી રીતે નિષ્ફળ થવા છતાં, તે/તેણી સરકાર નક્કી કરે તેટલી પરીક્ષા ફી ચુકવીને કોઈપણ સમયે એવી પરીક્ષામાં બેસવાને પાત્ર થશે અને તે/તેણી પરીક્ષા ઉત્તીર્ણ કરે તો તે/તેણી સિનિયર કારકુનની જગા પર બઢતી માટે પાત્ર થશે:

પરંતુ તે/તેણી સિનિયર કારકુનની જગા પર બઢતી માટે લાયક થયેલ હોય તે પહેલાં, નિયમ ૫ હેઠળ

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ઉપલબ્ધ તકોમાં જે વ્યકિતઓએ ખાતાકીય પરીક્ષા વહેલી ઉત્તીર્ણ કરી હોવાને કારણે સિનિયર કારકુન તરીકે બઢતી મેળવેલી હોય તેવી વ્યક્તિઓ ઉપર તે/તેણી સિનિયર કારકુનના સંવર્ગમાં સિનિયોરિટીનો દાવો કરવા હકદાર થશે નહિ

૫. (ક) કારકુન અથવા ગુજરાતી ટાઈપિસ્ટ અથવા અંગ્રેજી ટાઈપિસ્ટ અથવા, કારકુન-સહ- ટાઈપિસ્ટ-એ વધુમાં વધુ ત્રણ તકોમાં અને ત્રણ વર્ષની મુદતની અંદર પરીક્ષા ઉત્તીર્ણ કરવી પડશે;

(ખ) બઢતી સિવાય અન્યથા નીમાયેલા સિનિયર કારકુને તેની અજમાયશની મુદતની અંદર વધુમાં વધુ ત્રણ તકોમાં પરીક્ષા ઉત્તીર્ણ કરવી પડશેઃ

પરંતુ જુના નિયમો અથવા અન્યથા, નિયત તારીખ પહેલાં અગાઉ લીધેલી હોય અથવા લેવાની હોય તેવી તકો, આ નિયમો હેઠળ લેવામાં આવી હોય તેમ ગણાશેઃ

વધુમાં, અનુસૂચિત જાતિ અથવા અનુસૂચિત આદિજાતિની વ્યકિતને એક વધુ તક આપવામાં આવશે,જેનો લાભ, નિયમ ૩ અથવા નિયમ ૫માં જણાવેલી મુદત પૂરી થયાની તારીખથી એક વર્ષની મુદતની અંદર લેવાનો રહેશે.

૬. (૧) મંડળ, એક અંગ્રેજી વર્ષમાં ઓછામાં ઓછી બે વાર પરીક્ષા યોજશે.

(૨) પરીક્ષાના તારીખ, સ્થળ અને કાર્યક્રમની ઉમેદવારને જાણ કરવામાં આવશે.

૭. પરીક્ષાનો અભ્યાસક્રમ **પરિશિષ્ટ-'ક'** માં નિર્દિષ્ટ કર્યા પ્રમાણેનો રહેશે.

૮. (૧)આ નિયમો હેઠળ પરીક્ષામાં બેસવા ઈચ્છતી દરેક વ્યક્તિએ, પરીક્ષા શરૂ થવાની તારીખથી ઓછામાં ઓછા સાઠ દિવસ અગાઉ, આવી પરીક્ષાના ઉમેદવાર તરીકે પોતાનું નામ નોંધાવવા માટે પરિશિષ્ટ-'ખ'માં નિર્દિષ્ટ કરેલા નમૂનામાં તેની/તેણીની અરજી કચેરીના વડા મારફતે,ગુજરાત ઈન્સ્ટીટ્યુટ ઓફ કોમર્શિયલ ટેક્ષ મેનેજમેન્ટ-ને મોકલવી જોઈશે. તે/તેણી પરીક્ષામાં બેસવા માટે પાત્ર છે તે મતલબના ખાતાના વડાએ આપેલા પ્રમાણપત્રને આધારે ગુજરાત ઈન્સ્ટીટ્યુટ ઓફ કોમર્શિયલ ટેક્ષ મેનેજમેન્ટ ઉમેદવારનું નામ પરીક્ષા માટે સ્વીકારશે અને તે મંડળના સચિવને મોકલી આપશે.

(૨). જો અરજદાર તે પછી પરીક્ષામાં ન બેસવાનો નિર્ણય કરે, તો તેણે/તેણીએ પરીક્ષાના આરંભથી ઓછામાં ઓછા ત્રીસ દિવસ અગાઉ કચેરીના વડા -ને તેની જાણ કરવી જોઈશે.

(૩) પરીક્ષામાં બેસવા માટે ઉમેદવાર તરીકે તેનું/તેણીનું નામ નોંધાવ્યા પછી, પણ પેટા-નિયમ(૨)માં નિર્દિષ્ટ કર્યા પ્રમાણેના સમયમાં પરીક્ષામાંથી તેની ઉમેદવારી પાછી ખેંચ્યા અંગેની જાણ કર્યા વિના, કોઈ વ્યકિત પરીક્ષામાં બેસે નહિ તેવા પ્રસંગે, તેણે પરીક્ષા ઉત્તીર્ણ કરવાની એક તક ગુમાવી છે એમ ગણાશે :

પરંતુ વાણિજ્યક વેરા કમિશનરને એમ ખાતરી થાય કે આવી વ્યકિતએ પોતાની કાબૂ બહારના કારણોને લીધે સમયની અંદર જાણ કરી ન હતી, તો તે ઉપર્યુકત પ્રમાણેની જાણ કરવામાં તે વ્યકિતના પક્ષે કસૂર અને તેમાંથી ઉદ્ભવતા પરિણામોને માફ કરી શકશે.

૯. (૧) પરીક્ષા ઉત્તીર્ણ કરવા માટેનું ધોરણ, દરેક પત્રપત્રમાં મુકરર કરેલા કુલ ગુણના પચાસ ટકાનું રહેશે.

(૨) ઉમેદવારને તમામ વિષયના પ્રશ્નપત્રોના ઉત્તરો, કોઈપણ ટિપ્પણીઓ કે કેસ લો વિનાના ફકત અધિનિયમો,નિયમો અને અધિનિયમ હેઠળ સરકારે પ્રસિધ્ધ કરેલા નિયમસંગ્રહોના પુસ્તકોની મદદથી આપવા દેવામાં આવશે.

(૩) કોઈપણ એક અથવા તેથી વધારે પ્રશ્નપત્રોમાં સાઠ ટકા કે તેથી વધુ ગુણ મેળવનાર અસફળ ઉમેરવારને ત્યારપછીની પરીક્ષામાં તે પ્રશ્નપત્ર અથવા તે પ્રશ્નપત્રોની પરીક્ષામાં બેસવામાંથી મુકિત આપવામાં આવશેઃ

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પરંતુ જુના નિયમો હેઠળ ઉમેદવારે કોઈપણ પ્રશ્નપત્રમાં મેળવેલી મુકિત, આ નિયમો હેઠળ મેળવેલી છે એમ ગણાશે.

૧૦. ઉમેદવાર પરીક્ષામાં એંશી ટકા કે તેથી વધુ ગુણ મેળવે તો તેને સરકાર નક્કી કરે તેટલી રોકડ રકમ પ્રોત્સાહન તરીકે ચુકવવામાં આવશે.

૧૧. ઉમેદવાર, ગુણની ચકાસણી માટે, પરીક્ષાનું પરિણામ જાહેર થયાની તારીખથી ત્રીસ દિવસની અંદર, સાદા કાગળ પર અને સરકારી તિજોરીમાં ચુકવવાપાત્ર ઠરેક પ્રશ્નપત્ર માટે પચાસ રૂપિયાની ફીની ચુકવણી કરીને કચેરીના વડા મારફતે, ગુજરાત ઈન્સ્ટીટ્યુટ ઓફ કોમર્શિયલ ટેક્ષ મેનેજમેન્ટ,અમદાવાદ-ને અરજી કરી શકશે અને અસલ ચલનની નકલ મોકલી આપશે. ગુજરાત ઈન્સ્ટીટ્યુટ ઓફ કોમર્શિયલ ટેક્ષ મેનેજમેન્ટ, અમદાવાદ ગુણની ચકાસણી માટે તે અરજી મંડળના સચિવને મોકલી આપશે,જેઓ વિનંતીની ચકાસણી કરશે અને તદનુસાર ઉમેદવારને જાણ કરશે.કોઈપણ સંજોગોમાં,પ્રશ્નપત્રનું પુનઃ મૂલ્યાંકન થશે નહિ

પરિશિષ્ટ-'ક'

(જુઓ નિયમ - ૭)

ખાતાકીય પરીક્ષા માટેનો અભ્યાસક્રમ

પ્રશ્નપત્ર-૧ સેવાને લગતી બાબતો સમય-૩ કલાક ગુણ - ૧૦૦

(૧) ગુજરાત મુલકી સેવા(વર્તણૂક) નિયમો, ૧૯૭૧ અને ગુજરાત મુલકી સેવા (શિસ્ત અને અપીલ) નિયમો, ૧૯૭૧.

(૨) ગુજરાત મુલકી સેવા વર્ગીકરણ અને ભરતી (સામાન્ય) નિયમો, ૧૯૬૭ .

(૩) ગુજરાત મુલકી સેવા નિયમો, ૨૦૦૨,વોલ્યુમ.૧ થી ૮ .

પ્રશ્નપત્ર-૨ હિસાબી બાબતો સમય : ૩ કલાક ગુણ :૧૦

(૧) ગુજરાત નાણાકીય નિયમો, ૧૯૭૧ (નીચેના સિવાય)

- પ્રકરણ - ૨ નિયમો : ૧૫ થી ૧૯
- પ્રકરણ - ૩ નિયમો : ૩૧,૩૪,૩૫
- પ્રકરણ - ૫ નિયમ : ૬૪
- પ્રકરણ - ૬ નિયમો : ૯૭ થી ૧૦૨
- પ્રકરણ - ૭ નિયમો : ૧૫૨ થી ૧૫૭
- પ્રકરણ - ૯ નિયમો : ૧૬૯ થી ૧૭૫
- પ્રકરણ - ૧૦ નિયમો : ૧૮૫ થી ૧૮૬

(૨) ગુજરાત તિજોરી નિયમો, ૨૦૦૦ (નીચેના સિવાય):-

- પ્રકરણ – ૧ ટૂંકી સંજ્ઞા અને વ્યાખ્યાઓ,સામાન્ય સિધ્ધાંતો અને નિયમો
- પ્રકરણ - ૨ તિજોરી કામકાજ
- પ્રકરણ - ૪ સરકારી ખાતાને લગતા અથવા તેમાંના નાણાની કસ્ટડી
- પ્રકરણ – ૫ સરકારી ખાતામાંથી ઉપાડ
- પ્રકરણ – ૯ આકસ્મિક ચાર્જીસ
- પ્રકરણ - ૧૦ સરકારી ખાતામાંથી ઉપાડ - પેન્શનની ચુકવણી
- પ્રકરણ - ૧૩ બેન્ક, તિજોરીઓ માટે ખાસ નિયમો
- પ્રકરણ - ૧૪ ચોકકસ ખાતાને માટે ખાસ નિયમો
- પ્રકરણ - ૧૫ સરકારી દેવાંનો વ્યવહાર

પ્રકરણ - ૧૮ રદ કરવા બાબત અને અપવાદ

૩. મુંબઈ આકસ્મિક ખર્ચ નિયમો, ૧૯૫૯ (નીચેના સિવાય)

વિભાગ-૧૦	નિરીક્ષક અધિકારીના બિલ
વિભાગ-૧૨	જાહેર બાંધકામ વિભાગ માટે ખાસ નિયમો
વિભાગ-૨૧	દવાઓ અને દવાના ટીનની પેટીઓ
વિભાગ-૨૫	પોશાક
વિભાગ-૨૮	તંબૂઓ
વિભાગ-૨૯	ઈનામો
વિભાગ-૩૦	સાક્ષીને ખોરાક અને વાટખર્ચી
વિભાગ-૩૧	વકીલોની ફી અને કાનૂની ખર્ચ
વિભાગ-૩૩	રોગચાળા અંગે ખર્ચ
વિભાગ-૩૪	માલસામાન (સ્ટોર્સ)
વિભાગ-૩૫	રદ કરવા બાબત અને અપવાદ

(૪) ગુજરાત અંદાજપત્ર નિયમસંગ્રહ (નીચેના સિવાય)

પુસ્તક નંબર.૧(પ્રકરણ-૩,૭,૧૮)

પુસ્તક નંબર.૨(પ્રકરણ-૧,૪ અને ૫)

(૫) મુંબઈ સામાન્ય ભવિષ્યનિધિ નિયમો

પ્રશ્નપત્ર-૩ કચેરી કાર્યપધ્ધતિ અને નોંધ અને મુસદ્દાલેખન

સમયઃ ૩ કલાક **ગુણ :૧૦૦**

૧. બિન-સચિવાલયની કચેરીઓ માટે કચેરી કાર્યપદ્ધતિનો નિયમસંગ્રહ.

૨. નોંધ અને મુસદ્દાલેખન

પ્રશ્નપત્ર-૪ કરવેરા **સમયઃ- ૩ કલાક** **ગુણ :૧૦૦**

(૧) ગુજરાત મૂલ્યવર્ધિત વેરા અધિનિયમ,૨૦૦૩ અને તે હેઠળ બહાર પાડેલા નિયમો, જાહેરનામા અને હુકમો

(૨) કેન્દ્રીય વેચાણવેરા અધિનિયમ,૧૯૫૬ અને તે હેઠળ કેન્દ્ર સરકારે અને રાજ્ય સરકારે બહાર પાડેલા નિયમો અને જાહેરનામા.

પરિશિષ્ટ –'ખ'

(જુઓ નિયમ ૮)

અરજીપત્રક

ગુજરાત ગૌણ સેવા પસંદગી મંડળ, ગાંધીનગર,-એ,સિનિયર કારકુનના સંવર્ગ માટે યોજવાની ખાતાકીય પરીક્ષામાં બેસવા માટેનું અરજીપત્રક.

૧. અરજદારનું પૂરેપૂરુ નામ (અટક પ્રથમ લખવી) (અંગ્રેજી અને ગુજરાતીમાં) ----------

૨. હોદ્દો ----------

૩. હાલ જેમાં સેવા આપતા હોય તે કચેરીનું નામ ----------

૪. જન્મતારીખ અને આ પરીક્ષાના સમયે ઉંમર (પૂરેપૂરા વર્ષમાં)----------

૫. નિમણૂકની તારીખ, સેવાના કુલ વર્ષો ----------

(૧) કારકુન, અથવા ગુજરાતી ટાઈપિસ્ટ અથવા અંગ્રેજી ટાઈપિસ્ટ અથવા કારકુન- સહ- ટાઈપિસ્ટ તરીકે---------

(૨) સિનિયર કારકુન (સીધી ભરતી)તરીકે----------

૬. અગાઉ તેઓ કોઈ પરીક્ષામાં બેઠા છે? જો હા, તો,

(ક) જે પરીક્ષામાં બેઠા હોય તેનો મહિનો અને વર્ષ ----------

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(ખ) કોઈ મુકિત મળેલી છે ? જો હા, તો ગુણની,
પરીક્ષાના વર્ષની અને વિષયની વિગતો આપવી ----------

(ગ)અરજદાર આપેલ મુકિતનો લાભ લેવા માંગે છે ? (પસંદગીને આખરી ગણવામાં આવશે.)----------

૭. (ક) નામ સાથે અગાઉની પરીક્ષા ઉત્તીર્ણ કર્યાનો ક્રમાંક અને તારીખ.----------

૮. તેણે/તેણીએ પરીક્ષા જેટલી તકોમાં અને સમય-મર્યાદામાં ઉત્તીર્ણ કરવી જરૂરી
હોય તેની વિગતો (પરીક્ષામાં બેસવા માટે પાત્રતાની અને તે મુદત
પૂરી થવાની તારીખ જણાવવી) ----------

૯. કરેલા પ્રયત્નોની સંખ્યા----------
મહિનો----------
વર્ષ----------

૧૦. કોઈ વધારાની (ખાસ) તક આપવામાં આવી હોય તો તે)
(જે હુકમો હેઠળ તેને વધારાની (ખાસ) તક આપવામાં આવી હોય
તેનો ક્રમાંક અને તારીખ નિર્દિષ્ટ કરવી અને તેની એક નકલ જોડવી)----------

૧૧. જરૂરી ફી ભરેલી છે ?
જો હા,તો ચલનની વિગતો અને તારીખ જણાવવી----------

૧૨. પરીક્ષા ઉત્તીર્ણ કરવાનો હેતુ (દા.ત.બહાલી, સરકારી
સેવામાં પ્રતિધારણ, બઢતી વગેરે.)----------

૧૩. ખાતાકીય પરીક્ષાના નિયમો અનુસાર તેઓ
પરીક્ષામાં બેસવા લાયક છે ? ----------

૧૪. રિમાર્કસ, કોઈ હોય તો.----------

સ્થળ :
તારીખ :

(અરજદારની સહી)

યોગ્યતાનું પ્રમાણપત્ર

આથી, પ્રમાણપત્ર આપવામાં આવે છે કે :-

(૧) ઉપરની વિગતોની ખરાઈ કરવામાં આવી છે અને તે સાચી જણાઈ છે.શ્રી.....
.....૨૦૦..... ..માં યોજનારી પરીક્ષામાં બેસવા લાયક છે.

(૨) જરૂરી ફી ભરેલી છે, ચલનની નકલ જોડેલ છે.

(૩) ઉમેદવારને વધારાની તક આપવામાં આવી છે. હુકમની નકલ જોડેલ છે.

(કચેરીના વડાની સહી અને હોદ્દો)

ગુજરાતના રાજ્યપાલના હુકમથી અને તેમના નામે,
કે.એમ.અધ્વર્યુ,
સરકારના નાયબ સચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

HOME DEPARTMENT

NOTIFICATION

Sardar Bhavan, Sachivalaya,
Gandhinagar,18th July, 2011.

Constitution of Special Investigation Team for Investigation In C.R.No. 8/2004

No: GG/40/2011/SB-I/LAO/10/2010/10854:- Whereas the Hon'ble High Court of Gujarat in its order dated - 15/7/2011 in Criminal Misc. Application No: 15981 of 2010 with Criminal Misc. Application No: 9832 of 2010 with Special Criminal Application No: 1850 of 2009 has directed the State Government to appoint Shri J.V.Ramudu, IPS (AP:81), Managing Director, Police Housing Borad, State of Andhra Pradesh, Hyderabad in place of Dr. Satyapal Singh, IPS, Home Department, State of Maharastra, Mumbai. as the Chairman of the Special Investigation Team (SIT), which was constituted earlier vide this department's notification No: GG/77/SB-I/LAO/10/2010/10584 dated: 17/05/2011.

2. Now therefore, the State Government has decided to appoint Shri J.V.Ramudu, IPS (AP:81), Managing Director, Police Housing Board, State of Andhra Pradesh, Hyderabad as the Chairman of the Said Special Investigation Team (SIT) as directed by the Hon'ble High Court. The constitution of the Special Investigation Team (SIT) is now as follows as directed by Hon'ble High Court in its order dated. 15/7/2011.

1.	Shri J.V.Ramudu, IPS (AP:81), Managing Director, Police Housing Board, State of Andhra Pradesh, Hyderabad	Chairman
2.	Shri Mohan Jha, IPS, Joint Commissoner of Police (Crime), AhmedabadCity, Ahmedabad.	Member
3.	Shri Satish Verma, IPS, Joint Commissoner of Police (Traffic), AhmedabadCity, Ahmedabad.	Member

3. The SIT shall furnish its report pertaining to C.R.No.8/2004 registered with DCB Police Station, Ahmedabad to the Hon'ble Court in a sealed cover.

4. Shri J.V.Ramudu, IPS, Managing Director, Police Housing Board, State of Andhra Pradesh, Hyderabad will have to join the duty immediately in the SIT and will have to make himself available with SIT and continue the investigation in light of the order made by the Hon'ble High Court of Gujarat for carrying out the investigation with regard to this case and will have to complete the investigation.

5. The present SIT will have to submit the progress report on 4/8/2011 in sealed cover before the Registrar, Hon'ble High Court of Gujarat, Ahmedabad.

6. The State officers will have to ensure the protection to the witnesses if SIT requisites and in such case, the State officers will have to provide the protection.

7. The other terms and conditions will be the same as per the notification No: GG/77 /SB-I/LAO/10/2010/10584 dated. 16/11/2010. and dated 17/5/2011.

8. The state officers shall give all assistance to the SIT as per its requirement alongwith staff and necessary infrastructure.

By order and in the name of the Governor of Gujarat,

D.R.PATEL,
Deputy Secretary (L&O) to the
Government of Gujarat.

GOVERNMENT CENTRAL PRESS, GANDHINAGAR.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 20th July, 2011.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/ 41 /CPA/102010/212639/D : In exercise of the powers conferred by clause (a) of section 9 read with sub-section (1) (a), 1 (A) and (2) of section-10 of the Consumer Protection Act, 1986 as amended in 1993 and 2002, Government of Gujarat hereby cancel the Notification No. : GTH/2010/38/CPA/102010/212639/D dated 2/11/2010.

By order and in the name of the Governor of Gujarat,

R. A. CHAVADA,
Section Officer.

Government Central Press, Gandhinagar.

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Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

HOME DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 21st July, 2011.

CONSTITUTION OF SPECIAL INVESTIGATION TEAM FOR INVESTIGATION IN C.R. NO. 8/2004.

No: GG/ 41/2011/SB-I/LAO/10/2010/10854:- Whereas the Hon'ble High Court of Gujarat in its order dated - 19/7/2011 in Misc. Criminal Application No. 10011/2011 in Criminal Misc. Application No: 15981 of 2010 with Criminal Misc. Application No: 9832 of 2010 with Special Criminal Application No: 1850 of 2009 has directed the State Government to appoint Shri R. R. Verma, IPS (BH:1978),Additional Director General CISF, Head Quarter, New Delhi in place of Shri J.V.Ramudu, IPS (AP:81), Managing Director, Police Housing Board, State of Andhra Pradesh, Hyderabad as the Chairman of the Special Investigation Team (SIT), which was constituted earlier vide this department's notification No: GG/40/2011/SB-I/LAO/10/2010/10854 dated: 18/07/2011.

2. Now therefore, the State Government has decided to appoint Shri R. R. Verma, IPS (BH:1978),Additional Director General CISF, Head Quarter, New Delhi (On Central Deputation) as the Chairman of the said Special Investigation Team (SIT) as directed by the Hon'ble High Court. The constitution of the Special Investigation Team (SIT) is now as follows as directed by Hon'ble High Court in its order dated. 19/7/2011.

1.	Shri R.R.Verma, IPS (BH:1978),Additional Director General, CISF, Head Quarter, New Delhi	Chairman
2.	Shri Mohan Jha, IPS, Joint Commissioner of Police (Crime), Ahmedabad City, Ahmedabad.	Member
3.	Shri Satish Verma, IPS, Joint Commissioner of Police (Traffic), Ahmedabad City, Ahmedabad.	Member

3. The SIT shall furnish its report pertaining to C.R.No.8/2004 registered with DCB Police Station, Ahmedabad to the Hon'ble Court in a sealed cover.

4. Shri R.R. Verma, IPS (BH:1978),Additional Director General CISF, Head Quarter, New Delhi will have to join the duty immediately in the SIT and will have to make himself available with SIT and continue the investigation in light of the order made by the Hon'ble High Court of Gujarat for carrying out the investigation with regard to this case and will have to complete the investigation.

5. The present SIT will have to submit the progress report on 4/8/2011 in sealed cover before the Registrar, Hon'ble High Court of Gujarat, Ahmedabad.

6. The State officers will have to ensure the protection to the witnesses if SIT requisites and in such case, the State officers will have to provide the protection.

7. The other terms and conditions will be the same as per the notification No: GG/77 /SB-I/LAO/10/2010/10584 dated. 16/11/2010. and Notification No.GG/31/2011/SB-I/ LAO/10/2010/10854 dated 17/5/2011.

8. The state officers shall give all assistance to the SIT as per its requirement alongwith staff and necessary infrastructure.

By order and in the name of the Governor of Gujarat,

D. R. PATEL,
Deputy Secretary (L& O) to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts.

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar 21st July, 2011.

INLAND VESSELS ACT, 1917.

No. GPT / 40 / 2011 /GMB / 102000 / CS-8 / GH1 :- WHEREAS certain draft rules were proposed to be issued under section 19R of the Inland Vessels Act, 1917 (I of 1917), were published as required by sub-section (1) of section 74 of the said Act, on pages 36-1 to 36-30 of the Gujarat Government Gazette, Extra Ordinary, Part IV-A dated the 11th April, 2011, vide Government Notification, Ports and Transport Department No. GPT/24/2011/GMB/102000-CS-8-GH-1, dated the 11th April, 2011, inviting objections or suggestions from all persons likely to be affected thereby, within thirty days from the date of publication of the notification in the *Official Gazette.*

AND WHEREAS, no objections or suggestions were received by the Government in respect to the said draft rules.

NOW, THEREFORE, in exercise of the powers conferred by section 19R of the Inland Vessels Act, 1917 (I of 1917) , the Government of Gujarat hereby makes the following rules, namely:-

1 **Short Titles And Application.-** (1) These rules may be called the **Gujarat Inland Vessels Registration Rules, 2011.**

(2) Save as expressively provided otherwise, these rules shall apply to all inland vessels plying within the limits of Gujarat Ports.

2. Definitions: - In these rules, unless the context otherwise requires:-

(a) "Act," means the Inland Vessels Act, 1917 (1 of 1917);

(b) "Registering Authority" means the officers appointed as Registering Authority by the Government; under sub-section (1) of section 19B of the Act;

(c) "Government" means the Government of Gujarat;

(d) "vessels" means a vessel ordinarily plying in inland waters and within the limits of the Ports of Gujarat;

(e) "fees or fees" means the fee prescribed in the Schedule of Fees and paid in advance;

(f) "Headquarters" means Headquarters designated by the Government under these rules;

(g) "Surveyors" means surveying authority appointed by the Government under these rules;

3. **Inland vessel not to proceed on voyage unless has certificate of registration .-**

(1) An Inland vessel shall not proceed on any voyage or be used for any service unless it has a certificate of registration in force in respect thereof and granted under these rules.

(2) Nothing in this section shall apply to any inland vessel built at any place other than a place of registry and making her first voyage to any such place for the purpose of registration.

(3) The Government may by notification in the Official Gazette. -

(a) Declare such place or port within the territories under its administration as it thinks fit to be places of registry,

(b) appoint registering authorities at the place and port mentioned in clause (a) above for the purpose of these rules.

4. **Application For Registration.-** (1) Every application for registration of a vessel shall be made by the owner of the vessel or his authorised agents or by his legal or natural guardian to the Registering Authority notified by the Headquarters or the Government,-

(a) in case of an individual or partnership firm in Form GIVR-I, and .

(b) in case of a company or co-operative society in Form GIVR-l (A).

(2) The application shall accompany:-

(a) Declaration of ownership in Form GIVR - 1 (B),

(b) If the owner is a citizen of India, proof of citizenship and his permanent and present address,

(c) If the owners are a partnership firm or a concern, proof of partnership and citizenship of all partners,

(d) If it is a Company registered under the Companies Act, 1956 (I of 1956) in the Gujarat State

(i) Registration Certificate issued by the Registering Authority of Companies, and

(ii) Proof of citizenship and addresses of all Directors.

(e) In case of a Co-operative Society registered under the Gujarat Co-operative Societies Act, copy of registration, proof of citizenship and addresses of all members.

(f) In case of minor, proof of his/her citizenship and proof of citizenship of legal or official guardian.

(g) Fees as prescribed in SCHEDULE.

5. **Application for Registration of New Construction:-** in case of an application for registration of a vessel for new construction, in addition to the requirements prescribed in sub- rule (2) of rule 4, the following information or documents shall also be furnished along with the application, namely:-

(1) Drawings and computation as required under clauses (b},{(c) and (d) below and signed by a Naval Architect or Classification Society approved by Government of India, showing the following plans,-

(i) G.A. plans, construction, shell expansion, machinery and machinery lay out, propeller, shafting, gears and steering plans, pipeline such as bilge' and ballast, oil transfer etc.,
(ii) wheel house, crew accommodation, passages, galleys etc.,
(iii) change of Air for Engine Room, crew accommodation etc.,
(iv) life saving, fire fighting, light and sound signals,
(v) for special type of vessels, relevant plans.

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(2) Computation of the strength of hull, decks, bulkhead including collision bulkhead etc.

(3) Computation of stability, free board clearly showing amount of cargo and method of its placement, depicting calculation of metacentric height.

(4) Computation of tonnage measurement as per rules shown in Annexure.

(5) Certificates of all materials used, and

(6) Certificate of machineries from manufacturers, or classification societies or surveyors.

6. **Application for Registration of existing vessels:-** (1) If a vessel is already in existence and is registered in the State of Gujarat or in any other state in India under the Inland Vessel Act, 1917 or the Coasting Vessel Act, 1838 or rules framed there under by any State or Central Government, an application for registration of such existing vessels, in addition to the requirements prescribed under sub-rule (2) of rule 4, the following information or document shall also be furnished along with the application made under rule 4, namely,-

(a) No objection certificate from the State Government or Central Government from where the vessels registration is required to be transferred,

(b) In case the vessel is already mortgaged or hypothecated, no objection certificate from the Mortgagers or hypothecators,

(c) All possible data from the Registering Authority with whom the vessel was registered in the past, regarding stability, drawings as required in other provisions of these rules, and builders certificate if available:

Provided that if the previous Registering Authority is unable to supply the data, for any reasons whatsoever and communicates this in writing, the registration of a vessel need not to be withheld, if it can be established by the owner that the requirements regarding strength, stability etc. of the vessel, are as per the provisions of these rules.

(2) In case the vessel is not registered with any State or Central Government, the applicant shall furnish information or documents as prescribed in sub-rule (2) of rule 4 and rule-5 together with the reasons in details explaining the circumstances due to which the vessel was not registered.

7. **Inspection and inquiry by the Registering Authority.** (1) On receipt of the application for registration, the Registering Authority, if it considers the inspection of the vessel necessary, shall, fix the date and time of inspection and inform the applicant accordingly in Form GIVR-II.

(2) It shall be the duty and obligation of the owner of the vessel to furnish all such information as may be required by the Registering Authority and to afford all reasonable facilities to the Registering Authority or any person authorised by them in carrying out the inspection of the vessel, in such a manner as it deems necessary, for the purpose of satisfying itself, that the provisions of the Act and rules framed there under, have been complied with.

8. **Registration mark, approval of name of vessel and Issuance of official number.-**

(1) The Registering Authority shall, after satisfying itself that the provisions of the Act and rules made there under have been complied with, assign to the vessel serially a Registration number and mark after approving the name of the vessel.

(2) The owner or its Agent, at the time of application, shall furnish at least three names in chronological order of his choice for approval. The Registering Authority on ensuring that the same or similar sounding names has not been previously assigned to any other vessel, shall approve one name out of the proposed names. In case all the names suggested or similar sounding names have already been previously assigned, the owner shall be requested by the Registering Authority to furnish further three names and the process shall be continued till the parameters laid down above are met with.

(3) The Registering Authority shall intimate the applicant, in Form GIVR-II(A) the approved registration mark, number and name of the vessel. On receipt of approved registration mark, number and name of the vessel, the owner or the agent shall carve the name, marking and number on both the bows of the vessel and also on a prominent and conspicuous location easily identifiable on the super structure. The size of the letters shall not be lesser than 20 cms x 15 cms. In special

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circumstances, for a smaller vessel, at the discretion of the Registering Authority, these dimensions may be reduced to a size not less than 10 cms x 8 cms.

(4) The Port of Registry shall be carved and painted at the stern of the vessel conspicuously. The draft marks shall be prominently carved and painted conspicuously on forward and aft both port and starboard sides, respectively.

9. **Inspection of carving and marking and forwarding of Inspection certificate.** (1) On completion of carving and marking, the Registering Authority, on receiving intimation from the owner, shall cause, carving and marking inspected and certified and the inspecting authority shall forward the certificate to that effect to the Registering Authorities office.

(2) The owner of the vessel shall not give or assign any other name and official number and mark to such a vessel other than that by which the vessel is officially registered.

(3) In case the owner of the vessel registered under these rules intends to change the name, he may do so only after getting prior sanction from the Registering Authority of the vessel clearly giving the reasons for proposed change of name in writing and after payment of fees specified in Schedule. It shall be at the discretion of the Registering Authority, to approve the proposed change of name if it is satisfied that the other requirements of the relevant provision of these rules are fulfilled.

(4) The Registering Authority shall cause to ascertain the tonnage, particulars of the vessel, all main and auxiliary machinery and other requirements are in accordance with the relevant provisions of these rules. These particulars shall have to be incorporated in the certificate of registration issued under rule 10 and in the book of registration maintained under rule 12.

10. **Certificate of Registration.-** (1) The Registering Authority shall, after satisfying itself that the provisions of the Act and these rules have been complied with and after receipt of fees prescribed under rule 23, grant a certificate of registration to the vessel in Form GIVR-III.

(2) A certificate of registration granted in respect of any inland vessel, shall be used only for the purpose of lawful navigation of that vessel.

(3) The owner or the master of the vessel shall cause to keep a certified copy of the certificate of registration on board the vessel and to produce the original certificate of registration on demand by the Registering Authority or by such authority as may be notified by the Government.

(4) The Registering Authority may refuse to register an inland vessel if she is found to be defective or if the applicant fails to furnish satisfactory evidence in support of any statements made by him in the application. The Registering Authority when refuses to register any inland vessel, shall furnish in writing the reasons for such refusal to the applicant and send a copy of the same to the Headquarters.

(5) The applicant or the owner of the vessel shall have right to appeal to the Headquarters after payment of fees as specified in the Schedule, within a period of ten days from the date of receipt of advice for refusal of registration.

(6) On receiving such an appeal from the owner or applicant and after giving reasonable opportunities of being heard to the parties the appellate authority shall pass appropriate orders in Form GIVRA HQ-II.

(7) On receipt of orders from the appellate authority pass under sub-rule (6), the Registering Authority shall take appropriate action under intimation to the Head - quarters.

11. **Temporary Certificate of Registration.-** (1) In certain special circumstances, the Registering Authority, may grant a temporary registration certificate in Form GIVR- III (A) to a vessel to enable her to ply while the certificate of registration is under consideration. This temporary certificate of registration shall be valid for the time and within the limits therein mentioned and shall have the same effect as a certificate of registration.

(2) The temporary certificate of registration shall not be issued for a period of more than three months. No certificate of registration shall be issued by the Registering Authority unless the temporary certificate of registration, if any, issued previously, has been surrendered by the owner or agent of the vessel.

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12. **Book of Registration.-** (1) A book of registration of inland vessels shall be maintained by the Registering Authority in bound volume in Form GIVR-IV designating a page separately for each registered vessel, which shall contain all the particulars given in the certificate of registration.

(2) Any change in ownership, alteration in dimensions of the vessel, machineries, registration or discharge of mortgages or any other particulars in respect to any vessel registered in the book of registration shall have to be recorded accordingly.

(3) A copy of certificate issued on each occasion, shall be furnished to Headquarters within a period of one month of the date of recording in the book of registration.

13. **Mortgage of Inland Vessel or share.** (1) A registered Inland Vessel or a share or an interest therein may be mortgaged or made a security for a loan or other valuable consideration.

(2) Every instrument of mortgage of vessel or any interest thereon shall be,-

(a) in Form GIVRM-I for individual or partnership firm or concern, and

(b) in Form GIVRM-II for company, corporate body or co-operative society, as the case may be,-

(3) The Registering Authority shall, after satisfying itself that the instrument is properly executed, and fees have been received, record the same in register with the date and hour of acceptance and also make an endorsement to that effect on the instrument of mortgage and shall furnish the copy of the same to the Headquarters.

(4) Where there are two or more mortgages on the same vessel, the respective priorities shall be indicated in the register in the appropriate column by the letters A,B,C in the alphabetical order.

(5) Where a vessel, belonging to a company, corporate body or co-operative society is mortgaged, the Registering Authority shall not register the mortgage unless it has also been registered with Registering Authority of Companies under the Companies Act, 1956, or as the case may be, Registration of Co-Operative Societies.

(6) The provisions of section 47, 48, 49, 50, 51, 52 and 53 of the Merchant Shipping Act, 1958, shall mutatis mutandis apply, in relation to the mortgage of a mechanically propelled vessel as they apply in relation to ships, subject to the following modifications, namely:-

(a) in sections 47, 48, 49, 50. 51, 52 and 53, references to "ship", "Registering Authority" and "register book", wherever they occur, shall, respectively, be deemed to be construed as references to "mechanically propelled vessel", "Registering Authority" and "book of registration";

(b) in section 47, in sub-section (1}, for the words "the Registering Authority of the ship's port of registry shall record it in the register book", the words "the Registering Authority shall record it in the book of registration" shall be deemed to be substituted."

(7) When the mortgage debt is fully discharged, the Registering Authority after satisfying itself and after receiving the fees prescribed under these rules shall make such endorsement in the book of registration and on the instrument of mortgage specifying time and date of discharge of mortgage. The Registering Authority thereafter, shall furnish a copy of the same in Form GIVR-IV to the Headquarters within a period of one month from the date of recording in the book of registration and on request, may issue a letter to that effect to the owner or mortgagor.

(8) No part payment of any instrument of mortgage debt shall be recorded in the book of registration.

14. **Registration of alteration:-** (l)Any alteration in the registered vessel is required to be notified together with certificate of registration to the Registering Authority within a period of one month of alteration being carried out in Form GIVR-V. On receipt of the application of alteration with the requisite fees as prescribed under rule 23 , the Registering Authority shall cause to inspect the same and shall submit the application along with the particulars in Form GIVR-IV to the Headquarters.

(2) While inspecting after scrutinizing the plans of alteration if the Registering Authority or his authorised officials are of the opinion that:

(a) Where the alterations proposed or carried out are not substantial that is to say that they do not materially affect the dimensions or tonnage of the vessel or its carrying capacity, the Registering Authority shall enter the alteration in the Book of registration and also in the certificate of registration of the vessel duly signed and sealed.

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(b) Where the alterations materially affect the dimensions or tonnage or machinery or carrying capacity of the vessel, the Registering Authority shall proceed to register the vessel anew maintaining the same official number, mark and name and liability on the vessel.

(c) Thereafter the Registering Authority shall forward to the Headquarters the copy of the altered certificate in Form GIVR-IV or in case of registering it anew, intimate closure of the old registry to the applicant as well as to Headquarters and at the time of issuance of new certificate, the same procedure shall be followed as being followed in case of new registration under these rules.

(d) It shall be obligatory on the part of the owner to ensure that his vessel does not ply without a valid certificate of registration.

15. **Transfer of Port of Registry:-** (1) If all the persons having an interest in the vessel whether as an owner or mortgagor, desire that the registry of the vessel shall be transferred from one port to another, they may apply in Form GIVR-VI to the Registering Authority of the intended Port and the Port where the vessel is registered together with fees as prescribed under rule 23.

(2) The Registering Authority of the port where the vessel is registered after satisfying itself that the proposed transfer is not objectionable, transmit together with all requisite documents, particulars of the vessel and the encumbrances, if any, on the vessel, to the Registering Authority of the intended port together with no objection certificate from the mortgagor or hypothecator.

(3) The Registering Authority at the intended port of registry after satisfying itself regarding name, suitability and other requirements, assign new official number, name and code letters of the port to the vessel and intimate the owner in Form GIVR-II(A).

(4) After ascertaining that the new official number, mark, name, port of registry, draft marks other particulars, as mentioned in Form GIVR-II (A), correspond with the provisions of these rules and the Act and after receipt of fees, shall issue a fresh certificate of registration and communicate to the Registering Authority of the original port, the particulars official number and date of its new registry together with cancelled copy of registration of the old registration. A copy of which shall be communicated to Head-quarter.

(5) On receipt of documents mentioned in sub-rule (4) the Registering Authority of the original port of registry shall close the registration of the vessel and communicate the same to the Headquarter.

(6) If the vessel is not registered with the Registering Authority appointed by the Government under Inland Vessel Act, but is registered elsewhere, the owner at the time of applying for change of transfer of port, shall produce together with all other relevant documents prescribed under sub-rule [2] of rule 4, a no objection certificate from the Government where the vessel has been registered.

16. **Declaration of Ownership-** Every declaration of ownership shall be, in Form GIVR-I(B), made before a Registering Authority of inland vessel or a Magistrate of First Class or a Justice of Peace or a Commissioner of Oath.

17. **Transfer of Ownership of the Vessel or Interest therein:-** (1) The owner or in the case of joint ownership, all the owners or a company or a corporate body or a co-operative society who are registered owner of a vessel desiring to transfer, the ownership of vessel or any interest therein, shall apply to the Registering Authority of the Port, in Form GIVR-VI A , for permission to do so together with fees as prescribed under rule 23.

(2) The Registering Authority shall, after making such inquiry as it thinks necessary, regarding valid and authenticated sale deed, transfer of change of interest, mortgage or hypothecation together with validity and authenticity of the applicant etc., shall proceed to implement transfer of ownership or interest, as the case may be, and enter the same in the certificate of registration and Book of registration. Such changes shall be communicated to the Headquarters, within a period of one month.

18. **Transfer of ownership by operation of law:-** (1) Where the title to a vessel devolves on any person by operation of law, such person shall apply to Registering Authority together with requisite authenticated and valid documents specifying the circumstances in which he has acquired title to the vessel and also produce evidence of such acquisition.

(2) If the Registering Authority after making such inquiry as he thinks fit and on receipt of fees as prescribed under rule 23, is satisfied about claim of the applicant, he shall proceed to register the particulars of the change of ownership in book of registration and also endorse in the Certificate of Registration of the vessel. Such changes shall be communicated to the Headquarters within a period of one month,

19. **Vessels owned by minors:-** (1) Where a vessel is registered in the name of a person as the guardian of a minor, the ownership of the vessel shall remain with the minor and on attainment of adulthood, together with the proof of adulthood, he or she may apply to the Registering Authority for affecting the change in the entries in the book of registration and in the Certificate of Registration of the vessel.

(2) The Registering Authority after satisfying itself that all the documents are authenticated and valid, shall issue a fresh Certificate of Registration in Form GIVR-III, in the name of the applicant, after canceling earlier certificate of registration and shall make suitable entry in the book of registration and furnish a copy in Form GIVR- IV, to the Headquarters within a period of one month.

(3) The fees as prescribed under rule 23 shall be levied for the changes made in the entries in the book of registration and for the issuance of new Certificate of Registration of the vessel.

20. **Issue of Duplicate Copies of Certificate-** (1) Every application for a duplicate copy of certificate shall be accompanied by a declaration regarding the circumstances and proof in which the original certificate was destroyed, lost, misled, mutilated or defaced.

(2) The Registering Authority may, on application made by the owner, in Form GIVR-VIII, in this behalf, issue a duplicate copy of certificate of registration clearly marked "duplicate" in red ink, if he is satisfied that the original certificate of registration has been destroyed, lost, misled, mutilated or defaced.

(3) Where a duplicate copy of certificate of registration has been obtained on the ground that the original has been lost or destroyed and if such an original certificate of registration is subsequently found or received by the owner, he or she shall forthwith surrender the original certificate of registration to the Registering Authority who shall cancel the same.

(4) A duplicate copy of certificate of registration shall not be granted on the ground that the original has been mutilated or defaced unless the mutilated or defaced certificate is surrendered to the Registering Authority.

(5) If the owner, after obtaining a duplicate copy, continues to use original certificate of registration subsequently, he or she shall be liable for punitive punishment as the penalty laid under the Schedule appended to these rules.

(6) A fee as prescribed under rule 23 shall be levied for issuance of duplicate certificate of registration.

21. **Central Register to be maintained in the Headquarters, Port of Registry-wise:-**

(1) The Head of the Department in the Headquarter office who shall also have a designation as Chief Registering Authority, shall maintain central register in the Headquarter office, Port of registry-wise in Form GIVR HQ-I.

(2) On receipt of communication from the Registering Authority of the Port, in Form GIVR-IV or by any other means, the Central Registering Authority shall cause the entries received from the Registering Authority of the port to be entered in the Central Register under his signature and shall acknowledge the same to the Port of Registering Authority.

22. **Inspection of Book of Registration and supply of copies:-** (1) The Book of Registration, at the discretion of the Registering Authority, may be open for inspection, during office hours, to any bonafide person, on application in writing, made in this behalf, stating the purpose therein , and on payment of fees as prescribed under rule 23.

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(2) A certified copy of any entry from the Book of Registration, may be granted by the Registering Authority to any bonafide person on application made for the purpose stating the purpose therein, and on payment of fees as prescribed under rule 23.

(3) The Registering Authority shall maintain a separate book of account, describing the date, name of the applicant, purpose of inspection and information provided or copy issued, fees received, receipt number and other necessary particulars.

23. **Fees** :- A quantum of fees shall be levied under these rules at the rate and for the purpose specified in the Schedule appended to these rules. The Registering Authority shall initiate no action on any application received without payment of the prescribed fees.

24. **Registration of existing vessels registered in other States** :- (1) The owner of every inland vessel or coasting vessel registered before the commencement of these rules and plying within the limits of ports of Gujarat, shall within a period of six months of commencement of these rules, shall apply to the Registering Authority with all requisite documents, prescribed fees and with the certificate of existing registry for the purpose of re-registering the vessel under these rules.

(2) No application for the purpose of registering of existing vessels plying at the ports of Gujarat shall be entertained by the Registering Authority on the expiry of a period of six months prescribed under sub-rule (1).

(3) If for the application received within the specified time, as prescribed in sub-rule (1), for any reasons whatsoever, the registering procedure has not been completed within the prescribed period, the Registering Authority at its discretion, may grant a further period of three months for completion of procedure. No further extension shall be granted after the expiry of such extension.

(4) The Registering Authority shall enter in the Book of registration, the particulars of such vessels together with any outstanding mortgage or any interest therein and also assign a new official number and name and the port of registry to the vessel (if necessary).

(5) The official number and name assigned under sub-rule (4) shall be carved and painted in the same manner as prescribed in rule 8.

(6) The fees for registration shall be levied as prescribed under rule 23.

25. **Inspection. Detention of Vessel and right to Appeal:-** (1) The Registering Authority or any officer authorised by the Government not below the rank of Registering Authority or surveyor, may, for the purpose of inspection, enter the vessel, at any time during day or night.

(2) If on inspection, it is found that the vessel does not comply, with the provisions of the act or rules or instructions issued from time to time, the inspecting authority, may detain the vessel from plying, by issuing a provisional detention order in writing to the owner or master, assigning the reasons for such detention, under intimation to Registering Authority, Port, customs, surveying authority and Headquarters, in Form GIVR-IX.

(3) The owner or master may approach the inspecting authority against the order of detention, if they are ready to comply with the instructions if any, or redress the shortcomings mentioned in the provisional detention order.

(4) On satisfactory compliance of the instructions or redressal of shortcomings, mentioned in the provisional detention order, by the owner or master of the vessel, the detaining authority may release the vessel by a written order revoking the provisional detention order, under intimation to Registering Authority, Port, customs, surveying authority and Headquarters.

(5) On receipt of such provisional detention order, the owner or master shall have right to appeal in writing to the Headquarters within a period of ten days from the receipt of the provisional detention order.

(6) On receipt an appeal against provisional detention order and after giving a reasonable opportunity of being heard to the parties. The appellate authority may pass an appropriate order, in Form GIVRA HQ-II, under intimation to the detaining authority and the authorities mentioned in sub-rule (2).

26. **Suspension of Certificate of Registration** (1) The Registering Authority may suspend, for such period and subject to such conditions as it thinks fit, the certificate of registration of an inland vessel, even if the vessel is registered at any other port and if it has reason to believe that since granting of certificate of registration the vessel has become unfit to ply in inland waters.

(2) The vessel is said to be "unfit" within the meaning of these rules when the materials of which she is made of, her construction, the qualification of the master the number, description and qualification of the crew including officers, the weight, description and stowage of cargo and ballast, the condition of her hull and equipment, boilers and machineries are not such as to render her in every respect fit for the proposed of voyage or service.

(3) Where the registration of an inland vessel is suspended under sub-rule (1), for a period of not less than one month, the Registering Authority ordering the suspension shall, if it is not the Registering Authority of that vessel, inform the Registering Authority at the place where the 'vessel is registered, giving the facts and reasons of such suspension.

(4) The Registering Authority suspending the certificate shall cause the owner or master of the vessel to surrender the certificate of registration so suspended, and if the suspending authority is not the Registering Authority of that vessel, on receipt of suspended certificate of registration, cause this certificate of registration delivered to the Registering Authority at the port at which the vessel is registered.

(5) A certificate of registration surrendered under sub-rule (4), shall be returned to the owner when the order suspending the certificate has been rescinded or has ceased to operate. The Registering Authority of the port at which the vessel is registered, shall be intimated the rescission or cessation of operation, of the order of suspending the certificate of registration.

27. **Cancellation of Certificate of Registration.-** (1) If an inland vessel has been destroyed or has been rendered permanently unfit for service, the owner of the vessel shall as soon as practicable, report the fact to the Registering Authority of the port where the vessel is registered along with the certificate of registration and shall apply for cancellation of the registration of the vessel.

(2) The Registering Authority on receipt of report or application under sub-rule (1), after verification shall have the certificate of registration cancelled and charge the fees as prescribed under rule 23.

(3) On cancellation of certificate of registration under sub-rule (2), the Registering Authority shall enter the particulars in the book of registration accordingly and show in red ink the closure of registry. The Registering Authority shall inform the same to the Headquarters, within a period of one month.

(4) The Registering Authority may at any time require that any inland vessel plying within the limits of its jurisdiction may be inspected by them or by such authority as the Government may, by general or special order appoint in this behalf and, if as a result of such an inspection and its report, the Registering Authority is satisfied that the vessel is in such a condition that it is unfit to ply in inland waters, after giving the owner of the vessel an opportunity of being heard, cancel the registration of the vessel and require the owner thereof to surrender the certificate of registration forthwith to Registering Authority and shall enter the particulars in the book of registration and inform the Headquarters as prescribed under sub-rule(3).

28. **Penalties:-** Whoever commits a breach of any provisions made under these rules, shall be punishable for such breach in accordance with the provisions for penalties of such breaches as provided under chapter VII of the Act, as if he has committed such breach under the Act.

29. **Registering Authority Deemed to be Public Servant:-** Every person appointed as a Registering Authority under these rules shall, for the purpose of registration of vessels, be deemed to be a public servant within the meaning of the Indian Penal Code.

30. **Preservation of Documents:-** All documents relating to registration submitted by the parties shall be preserved by the Registering Authority. These documents may be produced to the Judicial Authority in case of a court case or may be required for other purposes.

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FORM NO. G1VR-1

GOVERNMENT OF GUJARAT

Application for the registration of inland vessel by an individual or partnership firm

(see clause (a) of sub-rule (1) of rule 4)

{ Under Section-19D of Inland Vessel Act-1917(1 of 1917) }

To,

The Registering Authority at Port of

Sir,

I/We being the owner of the Inland Vessel hereby request that the said vessel may please be registered at the Port of

2. I/We agree to pay such fees as may be levied under the rules.

3. The particulars are as under :-

(1) Owner(s) full name:

(2) Owner(s) full address:

(3) Owner(s) occupation:

(4) In case of individual: Proof of citizenship

(5) In case of partnership firm: Partnership deed and Proof of citizenship of all partners;

(6) Three copies of construction plans prepared by Naval Architect or approved by Classification Society:

(7) Builders certificate or declaration by owner stating builders certificate will be submitted on completion of construction before certificate of registration can be issued:

(8) Type of vessel: Cargo/Chemical Carrier/Gas Carrier/ Liquid Carrier/Tug/Passenger:

(9) Machinery's; details like make, model number, horsepower etc. together with certificate of approval:

(10) Year and place of built.

(11) Expected number of crew:

(12) Any other relevant particulars :

Signature and Seal of the Owner.

Date :

Place :

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FORM NO. GIVR-L (A)

GOVERNMENT OF GUJARAT

Application for the registration of inland vessel by a company or co-operative society

(see clause (b) of sub-rule (1) of rule 4)

{ Under Section - 19D of Inland Vessel Act-I917 (1 of 1917) }

To,

The Registering Authority at Port of

Sir,

I/We being the owner of the Inland Vessel hereby request that the said vessel may please be registered at the Port of

2. I/We agree to pay such fees as may be levied under the Gujarat Inland Vessels Registration Rules, 2008.

3. The particulars are as under :-

(1) Owner(s) full name:

(2) Owner(s) full address:

(3) Owner(s) occupation:

(4) Proof of citizenship:

(5) In case of company registration certificate from registration of company under companies act together with M.O.U.:

(6) In case of co-operative society, Certificate from Gujarat Co-operative Society Registering authority together with M.O.U.:

(7) Three copies of construction plans prepared by Naval Architect or approved by classification society:

(8) Builders certificate or declaration by owner stating builders certificate will be submitted on completion of construction before certificate of registration can be issued:

(9) Type of vessel: Cargo/Chemical Carrier/Gas Carrier/Liquid Carrier/Tug/Passenger:

(10) Machinery's; details like make, model number, horsepower etc. together with certificate of approval:

(11) Year and place of built:

(12) Expected number of crew:

(13) Any other relevant particulars :

Signature and Seal of the Owner.

Date:

Place:

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FORM NO. GIVR- 1(B)

GOVERNMENT OF GUJARAT

Declaration of ownership for registration of inland vessel

(see clause (a) of sub-rule (2) of rule 4 and rule 22)

I/We subject of the State of having a permanent address at and having principal of place of business at hereby declare that my vessel named is being built by at in the year or was purchased by me/us from on at for Rs

2. I/We the sole owner of the said vessel further declare that the vessel is intended to ply in the inland waters of State of Gujarat particularly in the port of for the purpose of

Place : Signature of the owner and seal

Dale :

Made and subscribed on the day of Year By above named in the presence of

Signature and Seal of

Registering Authority/Justice of Peace/Magistrate of 1st class/Commissioner of Oath.

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FORM NO. GIVR - II

Government of Gujarat

Appointment of date and time of inspection of the inland vessels intended to be registered by the Registering Authority.
(see rule 7)

From:

The Registering Authority
Inland Vessels
Port of

To,
The Owner of
Shri/Smt

Sir,

I have to acknowledge the receipt of an application dated for registration of above named vessel under Inland Vessel Act-1917 (1 of 1917) . Please be informed that the official of this Department may proceed on board the said vessel for inspection at on

2. You are requested to provide to the said officials, all reasonable facilities and furnish all necessary information in respect to the said vessel, its machinery, any part thereof , equipment etc. for the purpose of registration of the vessel under the Gujarat Inland Vessels Registration Rules, 2007.

Yours faithfully,
Registering Authority

No.

Date:

Place:

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FORM No. GIVR-II (A)

Government of Gujarat

Carving and Marking Note for Registration of Inland Vessel

(See rule 8)

(Under section-19H of Inland Vessel Act-1917 [1 of 1917])

No. Date:

Sub: Registration of Official Number

To,

Please refer to your letter No dated

1. The name proposed by you for has been approved by this Department. Official Number..... has been allotted to the said vessel.
2. It is requested that the above mentioned sanctioned name and official number may please be carved and painted on both the bows of the vessel and on a prominent place of super structure.
3. The carving and painting should be in Hindi, Gujarati and English.
4. Each letter should be of at least, 20 cms height and 15 cms. Breadth.

 (In case your vessel is very small and the size of lettering is inconvenient. Registering Authority may please be contacted so that a smaller lettering may be sanctioned).
5. On the stem of the vessel Port of Registry should be carved and painted in similar manner.
6. The draft marks forward and aft, port and star board sides should also be similarly carved and painted.
7. On completion of carving and marking, the Registering Authority may kindly be contacted for inspection.

Yours faithfully,

Registering Authority of Inland Vessels.

Approved name official number Port of Registry and Draft Marks of the above vessel has been inspected by undersigned at on and has been found satisfactory and complying with the rules.

Signature of the Inspecting Authority.

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FORM NO.GIVR - III

Government of Gujarat

Certificate of Registration

(see rule 10)

(Under Section 19F of the Inland Vessel Act, 1917 (1 of 1917) }

Official No Year Port of Registry

This is to certify that of has declared that subject of the Stale of And the owner of Called and the same was built at by of in the year

2. To the said vessel Official number has been duly granted under the Inland Vessel Act, 1917 at the port of

3. Particular of the vessel:-

(a) Length overall (in mtrs):
(b) Length (in mtrs):
(c) Breadth (in mtrs):
(d) Depth (in mtrs):
(e) Gross Tonnes:
(f) Registered Tonnes:
(g) Make of the engines:
(h) Model of the engine:
(i) Horse Power/Kilowatt per engine:
(j) Number of engines:
(k) Number of shafts:
(1) Estimated Speed:
(m) Type of vessel:
(n) Details of previous registration if any :

No :

Date :

Place :

Certified under my hand this day

Registering Authority

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FORM NO. GIVR-III (A)

Government of Gujarat

Temporary Certificate of Registration of Inland Vessel

(See rule 11)

Temporary Certificate under Inland Vessel Act, 1917 is granted to official number Port of Registry.....

Shri/Smt has declared that he/she is the subject of the Slate of..... and is/are the sole owner of Official Number which was built at by of in the year

This certificate shall remain valid for a maximum period of three months from the dale of issue of this certificate or for a period ending on date.....

This Temporary Certificate is issued pending preparation of the permanent certificate of registration and is subject to the conditions that it has to be surrendered by the owner before a permanent certificate of registration is granted to the vessel.

No.....
Date :
Place :

Certified under my hand this date

Registering Authority of Inland Vessels.

F0RM N0. G1VR-IV

Government of Gujarat

(See rule 12)

Book of Registration

(Under Section-19[C]of Inland Vessel Acl-1917(1 of 1917)}

Date of Registration: **Signature of Registering Authority**

1. Name of the vessel:
2. Official Number:
3. Registration Mark:
4. Name of the owner:
5. Address of the owner:
6. Description of vessel:
7. Length overall in mtrs:
8. Length in mtrs:
9. Breadth in mtrs:
10. Depth in mtrs:
11. Gross tonnage:
12. Registered Tonnage:
13. Make of the engine:
14. Model of the engine:
15. No. of engines:
16. No. of shafts:
17. Horse Power/Kilowatt per engine:
18. Total Propelling Horse Power:
19. Estimated speed:
20. Details of Auxiliary Engines:
21. Details of previous Registration if any:

Sr. No.	Name and Address of Mortgagor	Amount of Mortgage	Date and time of Registration of Mortgage	Signature of Registering Authority	Date of time of discharge of Mortgage	Signature of Registering Authority	Remarks
1	2	3	4	5	6	7	8

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FORM NO.G1VR-V

Government of Gujarat

(See rule 14)

Application for Registration of alteration or to issue a fresh certificate of registration.

(under section 19J of the Inland Vessel Act- 1917.)

Date :

To,

The Registering Authority

..... Port.

Sir,

I/We of being the owner of the Inland vessel bearing official number request you to be intimated that following alteration have been carried out on the above vessel on and between (here mention the period)

It is requested that a fresh Registration Certificate/bearing alteration may kindly be issued to undersigned. The fees amounting to Rs is paid by D/D/Challan No drawn on (name of the bank) dated..... is enclosed herewith.

Signature of the owner of vessel.

FORM NO.GIVR-VI

GOVERNMENT OF GUJARAT

APPLICATION FOR TRANSFER OF PORT OF REGISTRY

(See rule 15)

(under section 19K of the Inland Vessel Act, 1917.)

To,
The Registering Authority,
.....Port.

From:

Sir,

I/We are the owners of the Vessel Official No of Port, hereby request that the registry of the above mentioned vessel may please be transferred to the Registering Authority at Port, for the reasons mentioned below:-

.....
.....
.....
.....

It is required that a new official No. may please be allotted at your port of registry.

Yours faithfully,

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FORM NO. GIVR-VI A

Government of Gujarat

Application For Transfer Of Ownership

(See rule 17)

(under sub-section 2 of section 19M of the Inland Vessel Act, 1917.)

To.

The Registering Authority,

..... Port.

Sir,

I/We have acquired Inland Vessel No named registered at I/We hereby request that the said Inland vessel may please be registered in my/our name and the certificate of registration amended accordingly.

I am enclosing along with this the following documents:-

1) Proof of citizenship and permanent residence:

2) Proof of partnership:

3) Citizenship of partners:

4) Registration certificate issued by Registrar of Companies

5) Proof of citizenship of director

6) Drawing made and signed by-Naval Architect showing the plans of construction

Expansion, machinery, machinery layout, propeller shaft, steering, life saving, Fire fighting, light and sound signalling plans, communication equipments, wheel House, crew accommodation, pipeline.

*The order of the Government of (from which states the vessel has been presently registered) sanctioning the transfer and deed of sale in Form-IX duly executed are also enclosed.

The demand draft/treasury Challan for Rs. drawn on is enclosed herewith. The balance, if any, is payable by me/us.

Signature of the transferee.

I/We registered owner of Inland Vessel official number hereby submit that the Port of Registry..... or his authorised

attorney have transferred the ownership of the above mentioned vessel to

Signature of transferee

* This portion does not apply in case the transfer of vessel is within the state of Gujarat.

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FORM NO.G1VR-VII

Government of Gujarat

Application for cancellation of Registration certificate
(See rule 27)

(Under section 19O of the Inland Vessels Act, of 1917)

To,

The Registering Authority

..... Port.

Sir,

I/We of being owner of Inland Vessel named..... bearing No registered at Port, request you that the registration of the said vessel may kindly be cancelled for the reasons that:-

(a) The vessel has been lost, inquiry has been conducted or being conducted at

(b) The vessel is damaged and broken beyond repairs.

(c) The vessel is very old and needs a very large amount of replacement of hull and machinery, Or

(d) Any other relevant reasons.

(For the reasons specified in clause (b) and (c) above the vessel at present is lying at and ready for inspection by any authority delegated by)

I /We am/are enclosing the certificate of Registration along with the fees payable by me/us.

Date: Signature of the owner.

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FORM NO.GIVR-VIII

Government of Gujarat

Intimation of loss, mutilation of the Certificate of Registration and application for a duplicate certificate

(See rule 20.)

(Under section 19 of the Inland Vessel Act, 1917)

To,

The Registering Authority,

..... Port,

Sir,

I/We of owner of the vessel Registration No. registered at hereby intimate that the original registration granted to the above vessel has been lost or mutilated and the vessel now requires a duplicate certificate of registration. The Police report of the lost certificate is enclosed herewith. I/We hereby undertake in case the registry of the vessel is found, the same shall be submitted to the authority without delay.

I/We hereby declare that to the best of my/our knowledge that the registration of the vessel has neither been suspended nor cancelled under any of the provisions of the Act or the rules made thereunder.

I/We hereby deposit the fees of Rs by DD / Challan No Dated

It is requested that the duplicate certificate of registration may kindly be issued.

Date

Signature of owner of vessel.

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FORM NO.GIVR-IX

GOVERNMENT OF GUJARAT

Provisional Detention Order

(See rule 25)

The Inland Vessel Official No. of Port was inspected by undersigned at on dated The vessel is hereby provisionally detained under power vested under sub-rule (2) of rule 25 of the Gujarat Inland Vessel Registration Rules, 2008 made under the Inland Vessels Act, 1917. The defects or shortcomings are shown in annexure issued along with this order.

2. The vessel is forbidden to ply in the Ports of Gujarat till further orders.

3. The master/owner has been issued copy of this order together with annexure on dt at

OR

The master / owner ahs refused to accept the order and the order is pasted on the vessel on dt. in the presence of Whose signatures are appended below :

Signed

Officer empowered for carrying out inspection under rule 25 of the Gujarat Inland Vessel Registration Rules, 2008.

Copy with a request for needful action to:

1) The Registering Authority
2) The Surveying Authority
3) The Superintendent of Customs
4) The Port Officer
5) The Officer In-charge H.Q.

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FORM NO.GIVRM-I

Issued by the Government of Gujarat

INSTRUMENT OF MORTGAGE
(TO BE EXECUTED BY INDIVIDUALS/JOINT OWNERS/PARTNESHIP FIRMS)
(See Clause (a) of sub-rule (2) of rule 13)

I/We, the undersigned in consideration of the sum of Rupees..... this day let to me/us by permanently/having my/our principal place of business and my/our heirs executors or administrators covenant with the said firstly that I/We and or my/our heirs executors or administrators will pay to the said the said sum of rupees together with interest thereon at the rate of Percent per annum on the day of 200.... (year) and secondly that if the said principal sum is not paid on the said day, I/We or my/our heirs, executors or administrators, will during such time as the same or any part thereof remains unpaid, pay to the said interest on the whole or such part thereof as may for the time being remain unpaid, at the rate of percent per annum by equal half yearly payments on the Day of and day of in every year, and that for better securing to the said The payment in manner aforesaid of the said principal sum and interest I/we hereby mortgage to the said the Inland Vessel called official No Port of Registry..... Together with all her boats, appurtenances, etc. Lastly, I/we for myself/ourselves and my/our heirs, executors or administrators covenant with the said and his/their assignees that I / We have power to mortgage the said vessel in the manner aforesaid and the same is free from encumbrances save as appear by the Register of the said vessel.

Signature

Signed by the named in my presence

Signature

Designation

Seal of Office

Received the sum of rupees in discharge of the within written security dated this.....day of. year

Signed in my presence
Signature
Designation

Signature(s) of Mortgagee(s)

Seal of Office

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FORM NO. GIVRM – II

Issued by the Government of Gujarat

INSTRUMENT OF MORTGAGE
(TO BE EXECUTED BY A COMPANY OR BODY CORPORATE OR CO-OPERATIVE SOCIETY)
(See Clause (b) of sub-rule (2) of rule 13)

We, the Company Limited, having our principal place of business at in consideration of the sum of rupees this day let to us by residing permanently / having principal place of business at do hereby for ourselves and our successors covenant with the said And his / their / its assigns firstly that we / our successors will pay to the said or its/ their assigns the said sum of rupees together with interest thereof at the rate of percent, per annum on the day of year, secondly that if the said principal sum is not paid on the said day, we or our successor will, during such time as the same or any part thereof remains unpaid pay to the said interest on the whole or such part there of as may be fore the time being remain unpaid at the rate of percent, per annum by equal half yearly payments on the Day of And day in every year; and that for better securing to the said the repayment in the manner aforesaid of the said principal sum and interest, we hereby mortgage to the said Port of Registry together with all her boats and other appurtenances, etc. Lastly we for ourselves and our successors covenant with the said and appurtenance etc. and that same is free from encumbrances save as appeared in the Register of the said vessel.

In witness whereof we have subscribed our name(s) and common seal this Day of year

Signed by the above named in my presence.

Signature

For and on behalf of

Signature

Designation

Seal of Office Company's seal

Received that sum of rupees in discharge of the within mentioned security dated at this Day Year.

Signed in my presence

Signature

Designation Signature(s) of Mortgagee(s)

Seal of Office.

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FORM NO.GIVRA- HQ. I

(Central Register at H.Q)

(See rule 21)

Port of Registry : Designation of Registrar : name of vessel :

(1) (2) (3)

Official No. Name of the owner Previous Registry details if any :

(4) (5) (6)

Change in name / ownership : Yes / No.

(7)

Sr. No.	Particulars of events such as	Documents received from the Registrar			Dated signature of dealing	Dated signature of HQ of Dept.	Remarks
		(a) Document Received	(b) Number and date of letter	(c) Number, date and page No. of Inward Register			
1.	2.	3.(a)	3.(b)	3 (c)	4.	5.	6.

FORM NO. GIVRA HQ. II

Passing of order by Appellate Authority on appeal in case of the refusal of certificate of Registration

(See sub-rule (6) of rule 10)

From:

The Appellate Authority

.....

To,

Sub:

An appeal was received in this office on date against the order of Registrar of Inland Vessels at vide appeal No date

2. The applicant and the Registering Authority, both were given opportunity to be heard and present the case on date in this office.

3. After careful consideration and on the merits of the case, together with relevant rules, Act, this authority by the powers vested in him by rule of the Inland Vessel Rules, 2008 hereby passing the following order :

(1) The appeal stands rejected as per reasons mentioned in annexure.

OR

(2) The appeal stands on its merit and is accepted by this Authority and the Registering Authority is hereby directed :

(a) to register the vessel as per rules, or/and
(b) revoke the order of refusal of certificate of registration under intimation to this authority within a span of 15 days on the issuance of this order.

Signed and sealed on this date
Under my signature at
Date hours

CC: to: (1) The Applicant
(2) The Registering Authority

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FORM No. GIVRA HQ. III

(See sub-rule (6) of rule 25)

From:

The Appellate Authority

.....

To.

Sub:

An appeal was received in this office on date against the order of Registrar of Inland Vessels at vide appeal No date

2. The applicant and the Registering Authority, both were given opportunity to be heard and present the case on date in this office.

3. After careful consideration and on the merits of the case, together with relevant rules. Act, this authority by the powers vested in him by rule of the Inland Vessel Rules, 2008 hereby passing the following order :

(3) The appeal stands rejected as per reasons mentioned in annexure.

OR

(4) The appeal stands on its merit and is accepted by this Authority and the Registering Authority is hereby directed :

(c) to register the vessel as per rules, or/and
(d) revoke the suspension order/cancellation of certificate of registration as the case may be under intimation to this authority within a span of 15 days on the issuance of this order or/and
(e) to revoke the detention order issued by date

Signed and sealed on this date
Under my signature at
Date hours

CC: to: (1) The Applicant
(2) The Registering Authority

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SCHEDULE

Table of Fees

(see rule 23)

SI No.	Different purposes for which Fees is chargeable	Amount of Registration Fees (Rs.)
1.	For [mechanically propelled vessels] of less than 100 Tons	25
2.	For [mechanically propelled vessels] of less than 100 Tons and upto 200 Tons	40
3.	For [mechanically propelled vessels] of less than 200 Tons and upto 350 Tons	50
4.	For [mechanically propelled vessels] of less than 350 Tons and upto 700 Tons	60
5.	For [mechanically propelled vessels] of less than 700 Tons and upto 1000 Tons	80
6.	For [mechanically propelled vessels] of less than 1000 Tons and upto 1500 Tons	100
7.	For [mechanically propelled vessels] of less than 1500 Tons and upwards	120

By order and in the name of the Governor of Gujarat,

B. K. SINHA,
Additional Chief Secretary to Government.

Government Central Press , Gandhinagar.

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Extra No. 74

REGISTERED No. G/GNR/2

©

सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

PUBLISHED BY AUTHORITY

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Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 21st July, 2011.

INLAND VESSEL ACT, 1917.

No. GPT/41/2011/GMB/102000/CS-8/GH-1 :- WHEREAS certain draft rules were proposed to be issued under section 67 read with sections 19 and 52 of the Inland Vessels Act, 1917 (I of 1917), were published as required by sub-section (1) of section 74 of the said Act, on pages 37-1 to 37-312 of the Gujarat Government Gazette, Extra Ordinary, Part IV-A dated the 11th April, 2011, vide Government Notification, Ports and Transport Department No. GPT/25/2011/GMB/102000-CS-8-GH-1, dated the 11th April, 2011, inviting objections or suggestions from all persons likely to be affected thereby, within thirty days from the date of publication of the notification in the *Official Gazette*.

AND WHEREAS, no objections or suggestions were received by the Government in respect to the said draft rules.

NOW, THEREFORE, in exercise of the powers conferred by section 67 read with sections 19 and 52 of the Inland Vessels Act, 1917 (I of 1917), the Government of Gujarat hereby makes the following rules, namely:-

CHAPTER I

PRELIMINARY

1. **Short title, commencement and application.**— (l)These rules may be called the Gujarat Inland Vessels (Survey, Construction and Safety) Rules, 2011.

2. (a) They shall apply to inland vessels and barges with steel hull as follows:-

(i) All Cargo/Passenger vessels of,
-length>15(M),
Gross tonnage > 150,
Power of engine (s) > 100 bhp

(ii) Passenger vessels carrying 25 passengers or more,

(iii) Manned Barges of length > 15 (M),

(iv) Unmanned Barges of length > 30 (M);

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(b) They shall not apply to,-

(i) Vessels of war and troop vessels,
(ii) Pleasure craft not engaged in any activity with pecuniary benefits,
(iii) Fishing vessels, and
(iv) Wooden vessels of primitive build.

2. **Definitions**.—In these rules, unless the context otherwise requires,-

(1) "accommodation spaces" means those spaces, corridors, lavatories, cabins, offices, hospitals, cinemas, games and hobbies rooms, pantries containing no cooking appliances and similar spaces;

(2) "Administration" means the Government of the State whose flag the vessel is entitled to fly;

(3) "amid vessels" means at the middle of the length ;

(4) "anniversary date" for the purposes of these rules, means the day and month of each year which corresponds to the date of expiry of the relevant certificate;

(5) "approved" means approved by the Administration;

(6) "auxiliary means of steering" means the equipment other than any part of the main steering gear necessary to steer the vessel in the event of failure of the main steering gear but not including the tiller, quadrant or components serving the same purpose;

(7) "barge" means a cargo vessel not propelled by mechanical means and includes manned and unmanned barges and pontoons but excludes accommodation barges;

(8) "Block Co-efficient or (Cb)" means,-

Formula : Cb = V/L * B * di

Where.-

V is the volume of the modules displacement of the vessel, excluding bossing, in a vessel with a metal shell and is the volume of displacement to the outer surface of the hull in a vessel with a shell of any other material, both taken at a moulded draught of di ;

di is 85 per cent of the least moulded depth;

L is the length as defined in this rule;

(9) "breadth or (B)" unless expressly provided otherwise, means the maximum breadth in meters of the vessel, measured amid vessels to the moulded line of the frame in a vessel with a metal shell and to the outer surface of the hull in a vessel with a shell of any other material;

(10) "bridge to bridge communications" means, safety communications between vessel from the position from which the vessels are normally navigated;

(11) "bulkhead deck" is the uppermost deck up to which the transverse watertight bulkheads are carried;

(12) "cargo vessel" is any vessel, which is not a passenger vessel;

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(13) "cargo spaces" are all spaces used for cargo (including cargo oil tanks) and trunks to such spaces;

(14) "company" for the purpose of these rules, means the owner of the vessels or organization or person such as the manager or bare boat charter, who has assumed the responsibility for operation of the vessel from the vessels owner;

(15) "control stations" are those spaces in which the vessel's radio or main navigating equipment or the emergency source of power is located or where the fire recording or fire control equipment is centralized;

(16) "depth for freeboard or (D)" means the moulded depth amid-vessels, plus the thickness of the freeboard deck stringer plate, where fitted, plus T* (1-5) -, L if the exposed freeboard deck is sheathed,

Where.-

L is the length as defined
T is the mean thickness of the exposed sheathing clear of deck openings, and
S is the total length of superstructures as defines in definition 71 of this regulation;

(17) "detection" is the determination of the location of survivors or survival craft;

(18) "existing vessel" means a vessel which is not a new vessel; and a vessel whose keel has been laid and 90% construction has been completed;

(19) "emergency source of electrical power" is a source of electrical power, intended to supply the emergency switchboard in the event of failure of the supply from the main source of electrical power;

(20) "fishing vessel" resources; is a vessel used for catching fish, or other living resources;

(21) " flush deck vessel " means a vessel which has no superstructure on the freeboard deck;

(22) "freeboard assigned" is the distance measured vertically downwards amidvessels from the upper edge of the deck line to the lower edge of the related toad line;

(23) "freeboard deck" means, normally, the uppermost complete deck exposed to weather and sea, which has permanent means of closing all openings in the weather part thereof, and below which all openings in the sides of the vessel are fitted with permanent means of watertight closing. In a vessel having a discontinuous of that line parallel to the upper part of the deck and continuation of that line parallel to the upper part of the deck is taken as the freeboard deck. At the option of the owner and subject to the approval of the administration, a lower deck may be designated as the freeboard deck provided it is a complete and permanent deck continuous in a fore and aft direction at least between the machinery space and peak bulkheads and continuous athwart vessels, When this lower deck is stepped the lowest line of the deck and the continuation of that line parallel to the upper part of the deck is designated as the freeboard deck, the part of the hull which extends above the freeboard deck is treated as superstructure so far as concerns the

application of the conditions of assignment and the calculation of freeboard. It is from this deck that the freeboard is calculated;

(24) For this purpose of assignment of free board mark, vessels areas of operation will be categorized in to 3 Zones, namely:-

Zone-I: Where maximum significant wave height does not exceed 2.0 meters,
Zone-2: Where maximum significant wave height does not exceed 1.2 meters,
Zone-3: Where maximum significant wave height does not exceed 0.6 meters;

(25) "significant wave height" means the average of heights of 10% of the total number of waves having the greatest heights measured between wave trough and wave crest, observed over a short period;

(26) "Gross tonnage" means the tonnage as measured in accordance with the International Tonnage Convention, 1969. And for vessels of less than 24 metres in length in accordance with the relevant national rule;

(27) "inflatable appliance" is an appliance which depends upon non-rigid, gas-filled chambers for buoyancy and which is normally kept un-inflated until ready for use; inflate

(28) "launching appliance or arrangement" is a means of transferring a survival craft or rescue boat from its stowed position safely to the water;

(29) "length or (L)", measured in metres, is 96% of the total length on a waterline at 85% of the least moulded depth measured from the top of the keel, or the length from the fore-side of the stem to the axis of the rudder stock on that waterline, whichever is greater. In vessels designed with a rake of keel the waterline on which this is measured shall be parallel to the designed waterline;

(30) "locating" means the finding of vessels, aircraft, units or person in distress;

(31) "low flame spread" means that the surface thus described will adequately restrict the spread of flame, this being determined to the satisfaction of the Administration by an established test procedure;

(32) "machinery space " is to be taken as extending from the moulded base line to the margin line and between the extreme main transverse watertight bulkhead, bounding the spaces containing the main and auxiliary propulsion machinery serving the needs of propulsion, In the case of unusual arrangements, the Administration may define the limits of the machinery spaces;

(33) "machinery space of category A" means those spaces and trunks to such spaces, which contain: -

(a) internal combustion machinery used for main propulsion,

(b) internal combustion machinery used for purposes other than main propulsion where such machinery has in the aggregate a total power output of not less 375 KW, or

(c) any oil-fired boiler or oil fuel unit;

(34) "main source of electrical power" means a source intended to supply electrical power to the main switchboard for distribution to all services necessary for maintaining the vessel in normal operational and habitable condition;

(35) "main steering gear" means the machinery, rudder actuators, steering gear power units, if any, and ancillary equipment and the means of applying torque to the rudder stock (e.g. tiller or quadrant) necessary for effecting movement of the rudder for the purpose of steering the vessels under normal service conditions;

(36) "main switch board" means a switchboard which is directly supplied by the main source of electrical power and is intended to distribute electrical energy to the vessel's services;

(37) "maximum ahead service speed" means the greatest speed which the vessel is designed to maintain in service at the deepest draught;

(38) "maximum astern speed" means the speed which it is estimated the vessel can attain at the designed maximum astern power at deepest draught;

(39) "moulded depth" means.- "

(a) the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side. In wood and composite vessels the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the mid vessels section is of a hallow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel,

(b) in vessels having rounded gunwales, it shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwale were of angular design,

(c) where the freeboard deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, it shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part;

(40) "new vessel" means a vessel the keel of which is laid and construction completed is less than 90% on or after the date of adoption of the Rules by each Administration;

(41) "non-combustible material" means a material which neither burns nor gives off flammable vapours in sufficient quality for self-ignition when "heated to approximately 7500 C , this being determined to the satisfaction of the Administration by an established test procedure. Any other material is a combustible material;

(42) "passenger" means every person other than,-

(a) the master and the members of the crew or other persons employed or engaged in any capacity on board a vessel on the business of that vessels; and

(b) a child under one year of age;

(43) "passenger vessel " means a vessel which carries more than 25 passengers;

(44) "perpendiculars" means the forward and after perpendiculars taken at the forward and after ends of the length (L). The forward perpendicular shall coincide with the foreside of the stem on the waterline on which the length is measured;

(45) "public spaces" means those portions of the accommodation which are used as halls, dining rooms, lounges and similar permanently enclosed spaces;

(46) "retro-reflective material" means a material which reflects in the opposite direction a beam of light directed on it;

(47) "service spaces" are those spaces which are used for galleys, pantries containing cooking appliances, stockers, mail and specie rooms, store-rooms, workshops other than the forming part of the machinery spaces, and similar spaces and trunks to such spaces;

(48) "steel or other equivalent material" wherever the words "steel or other equivalent material" occur, "equivalent material" means any non- combustible material which, by itself or due to insulation provided, has structural and integrity properties equivalent to steel at the end of the applicable exposure to the standard fire test (e.g. aluminum alloy with appropriate insulation);

(49) "superstructure" means a decked structure on the freeboard deck, extending from side to side of the vessels or with the side plating not being inboard of the shell plating more than 4 per cent of the breadth. A raised quarter deck is regarded as a superstructure;

(50) "tanker" means a cargo vessel constructed or adopted for the carriage in bulk of liquid cargoes of an inflammable nature;

(51) 'trunk "means a decked structure on the freeboard deck set in form the sides of vessel for more than 4% of the breadth and having no doors, windows or other similar openings in the outer bulkheads;

(52) "watertight" means capable of preventing the passage of water through the structure in any direction under a head of water for which the surrounding structure is designed;

(53) "weather-light" means that in any sea condition water will not penetrate into the vessel;

(54) "wooden vessel of primitive build" means a without deck wooden vessel of traditional build.

3. **Exemptions.**— (1) The Administration may, where it considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific provisions of the rules unreasonable or unnecessary, exempt from those requirements to individual vessels or classes of vessels when engaged in such voyages.

(2) A vessel to which these rules are applicable, and which is not normally engaged on voyages but which in exceptional circumstance is required to undertake a single voyage may be exempted by the Administration from any of the requirements of these rules provided that it complies with such other requirements which are, in the opinion of the Administration, adequate for the intended voyage.

(3) The Administration may exempt any vessel, which embodies features of a novel kind from any of the provisions of these rules the application of which might seriously impede research into development of such features and their incorporation in vessels. Any such

vessel shall, however, comply with such safety requirements, which in the opinion of the Administration are adequate for the service for which it is intended and are such as to ensure the overall safety of the vessel.

4. **Equivalents.**— Where these rules require that a particular fitting, material, appliance or type thereof shall be fitted or carried in a vessel, or that particular provision shall be made, the administration may allow any fitting material, appliances or type thereof to be fitted or carried or any other provision to be made in that vessel, if it is satisfied by trails or otherwise that such fitting, material, appliance, apparatus or type thereof is at least as effective as that required by these rules.

5. **Force majeure.**—(1) A vessel which is not subject to the provisions of these rules at the time of its departure on any voyage shall not be subject to such provisions on account of any deviation from its intended voyage due to stress of weather or any other cause leading to force majeure.

(2) In applying the provision of these rules, the Administration shall give due consideration to any deviation or delay caused to any vessel owing to stress of weather, or any other cause leading force majeure.

6. **Standards.**— (l)The construction, installation, structural strength, fittings, material, appliances and apparatus unless expressly provided by these rules, shall be as per the recognised standards.

(2) In addition to the requirements and standards referred to in these rules other applicable requirements and standards stipulated by other statutory bodies and standards may also be applied.

7. **Repairs, alternations, modifications of major character.** — (1) The repairs, alternations and modifications of a major character and out-fitting related thereto on the existing vessels shall meet the requirements prescribed for a new vessel to such extent as the Administration deems reasonable and practicable. The owner shall inform the Administration of the proposed alternations and modifications before such alternations and modifications are carried out.

(2) For the purpose of these rules, the following repairs, alternations and modifications shall be recognized as being of major character, namely:-

(a) any changes that substantially alters the dimensions of the vessel,
(b) any changes that substantially increase a vessel's service life, or
(c) any conversions that alters the functional aspects of the vessel.

8. **Carriage of cargoes. -** the vessels and barges carrying dangerous cargoes specified below shall comply with the applicable requirements of chapter VI & VII of SOLAS,

(a) grain cargo in bulk,
(b) oil in bulk,
(c) dangerous cargoes in packaged form or in bulk,
(d) liquid chemicals in bulk, and
(e) liquefied gases in bulk.

Explanation:- 'SOLAS' stands for the International Convention for the Safety of life at Sea, 1974.

CHAPTER - II

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SURVEYS AND CERTIFICATES

9. General aspect of inspections, surveys and markings.— (1) The inspection, survey and marking of vessels, so far as regards the enforcement of these rules and the granting of exemptions there from, shall be carried out by the surveyors of the Administration. The Administration may, however, entrust the inspections, marking and the surveys either to surveyors nominated for the purpose or to recognized organizations/classification societies e.g. IRS, L.R.S. BVS etc.

(2) The Administration nominating surveyors or recognized organizations to conduct inspections and surveys under sub-rule (1) shall empower any nominated surveyor or recognised organization to carry out inspections, surveys and repairs to a vessel.

(3) When a nominated surveyor or recognized organization determines that the condition of the vessel or its equipment does not correspond substantially with the particulars of the certificate or is such that the vessel is not fit to proceed on voyage without danger to the vessel, or persons on board, such surveyors or recognized organizations shall immediately ensure that corrective action is taken and shall in due course notify the Administration. If such corrective action is not taken the relevant certificate shall be withdrawn immediately; and if a vessel is in the waters of another State, the appropriate authorities of the State shall also be notified immediately. When an officer of the Administration, a nominated surveyor or a recognized organization has notified the Administration of that State, the Government of that State shall give such officer, surveyor or the recognized organization necessary assistance to carry out their obligations under these rules. When applicable, the Government of such State shall ensure that the vessel does not sail until it can proceed on voyage, or leave port only for the purpose of proceeding to the appropriate repair yard without danger to the vessel or persons on board.

(4) In any case, the Administration shall fully guarantee the completeness and efficiency of the inspections and surveys, and shall undertake to ensure that necessary arrangements to satisfy this obligation are established.

9. Surveys.- (1) All Vessels to which these rules apply shall be subject to surveys. The general nature and the periodicity of such surveys shall be as specified below, namely:-

(a) an initial survey, including an inspection of the outside of the vessel's bottom, before the vessels is put in service;

(b) a renewal survey at intervals specified by the Administration but not exceeding 2 years for the vessels operating in Zone 1 and 5 years for the vessels operating in Zone 2 and 3, except where sub-rule (6) of rule 10 is applicable;

(c) a periodical intermediate survey within three months before or after the second anniversary date or within three months before or after the third anniversary date of the certificate which shall take the place in one of the annual surveys specified in (d);

(d) an additional survey within three months before or after each anniversary date of the certificate;

(e) an additional survey as the occasion arises;

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(f) one inspection of the vessel's hull, including of the outside of the vessel's bottom, within a two year period shall be carried out for vessels operating in Zone-1 and one inspection within a period of 5 years for vessels operating in Zone 2 and 3.

(2) The surveys referred to in sub-rule (1) shall be carried out as follows, namely:-

(a) The initial survey before the vessel is put into service shall be such as to ensure that arrangements, equipment and systems specified below comply fully with the requirements of the rules and the workmanship of all such parts and equipment is in all respects satisfactory :-

(i) the arrangements, materials and scantlings of the structure;

(ii) boilers and other pressure vessels;

(iii) main and auxiliary machinery associated control systems; including steering gear and associated control system;

(iv) fire safety systems and appliances, life-saving appliances and arrangements, navigational equipment, nautical publications, means of embarkation pitots;

(v) radio installation including those used in life-saving appliances;

(vi) arrangements for the control of discharge of oil and for the retention of oil board;

(vii) provision of the lights, shapes, means of making sound signals & distress signals as required by these rules;

(viii) the arrangements, materials and scantlings fully comply with the requirements of chapter 13 & 14 relating to the conditions for assignment of load lines and freeboard.

(b) The renewal survey shall include an inspection of the equipments referred to in sub- rule (1) to ensure that it complies with the relevant requirements of these rules.

(c) The periodical survey shall include an inspection with tests where necessary equipment to ensure that the requirements relating to the life- saving appliance, fire appliances and the light and sound signals are complied with and that they are in satisfactory condition and are fit for the service for which the vessels is intended. All certificates, records books, operating manuals and other instructions and documents specified shall be checked for their adequacy.

(d) The intermediate survey shall include an inspection of items relating to CHAPTERS III to VII and CHAPTER XV of these rules to ensure that they are in a satisfactory condition and fit for the service for which the vessel is intended. When inspecting items of hull and machinery for detailed examination, due account shall be taken of any continuous survey schemes adopted.

(e) The annual survey shall include an inspection to ensure that,-

(i) the equipment referred to in sub-rule (1) remains satisfactory for the service for which the vessel is intended;

(ii) alterations in design have not been made to the hull or superstructures, which may affect the calculations determining the position of the bad lines;

(iii) the fittings and appliances for the protection of openings, guard rails, freeing ports and means of access to crew's quarters are maintained in an effective condition.

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(f) An additional survey either general or partial, according to the circumstances, shall be made after a repair resulting from investigations whenever an accident occurs to a vessels or a defect is discovered, either of which affects the safety of the vessel or whenever any important repair or renewals are made. The survey shall be such as to ensure that the repairs and renewals are effectively made.

(g) A minimum of one inspection of the outside of the vessel's bottom during any five year period except where so authorised by the Administration. The inspection of the outside of the vessel's bottom and the survey of related items inspected at the same time shall be such as to ensure that they remain satisfactory for the service for which the vessels is intended. Preferably the inspection shall coincide with the renewal survey

(3) The periodical/intermediate and the annual surveys referred to in these rules shall be endorsed on the Certificate.

(4) Where a vessel complies with these rules partially and complies with the relevant provisions of the rules, Administration shall ensure that the rules compliance with such prior to issue of any certificate under the regulation compliance with such provisions of the rules is assured.

10. **Maintenance of condition after survey**.- (1) The condition of the vessel and its equipment shall be maintained by the master and company to conform with the provisions of these rules to ensure that the vessel in all respects will remain fit to proceed on voyage without danger to the vessel, persons on board or the marine environment.

(2) After any survey of the vessel under this chapter is completed, no change shall be made in the structural arrangements, machinery, equipment and other items covered by the survey, without the sanction of the administration.

(3) Whenever an accident occurs to the vessel or defect is discovered, either of which affects the safety or the efficiency or completeness of its life-saving appliances or other equipment, a request shall be made immediately to the Administration responsible for issuing the relevant certificate for a survey, as may be required by rule 9, to be carried out as soon as practicable.

11. **Issue or endorsements of certificates**.- (1) Subject to the provisions of the rules of this chapter a certificate shall be issued after an initial or renewal survey specified in sub-rule (2) of rule 9, to a vessel which complies with the relevant requirements of the rules. In any case the Administration shall ensure the completeness of the inspection prior to the issue of any certificates.

(2) The certificate issued under the provision of sub-rule (1) shall be supplemented by the record of the equipment.

(3) When an exemption is granted by the Administration to a vessel under and in accordance with the provisions of the rules an Exemption Certificate shall be issued in addition to the certificate prescribed in the rules. The Exemption Certificate shall be attached to the certificate to which it refers.

(4) The certificate referred to in this rule shall be issued or endorsed either by Administration or by any person or organization authorized by it. In any case, the administration shall assume full responsibility for the certificate.

12. **Issue or endorsement of certificates by another Government.**- The Administration applying the provisions of the rules may, at the request of another Administration similarly applying the provisions of the rules, cause a vessel to be surveyed and if satisfied that the requirements of the rules are complied with shall issue or authorize the issue of the certificates to the vessel where appropriate, endorse or authorize the endorsement of the certificate in accordance with the requirements of the rules. Any certificate so issued shall contain a statement to the effect that it has been issued at the request of the Government of the State, where the vessel is registered.

13. **Duration and validity of certificates.**- (1) A Certificate shall be issued for a period as specified by the Administration. Such period shall not exceed 2 year for vessels operating in Zone 1; and 5 years for vessels operating in Zone 2 and 3. It is felt that exemption period shall be limited for 6 months for Zone 1 vessel and one year for Zones 2 and 3 vessels.

(2) Notwithstanding the requirements of sub-rule (1), when the renewal survey is completed within three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding 2 year and 5 years from the date of expiry of the existing certificate, as the case may be.

(3) When the renewal survey is completed after the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding two years and five years from the date of expiry of the existing certificate, as the case may be.

(4) When the renewal survey is completed more than three months before the expiry date of the existing certificate, the new certificate shall be valid from the date of completion of the renewal survey to a date not exceeding two years and five years from the date of completion of the renewal survey, as the case may be.

(5) If the certificate is issued for a period of less than 2 years and 5 years, the Administration may extend the validity of the certificate beyond the expiry date to the maximum period specified in sub-rule (1), provided that the applicable surveys referred to in rule 9 for the issue of the certificate for 2 years and 5 years are carried out.

(6) If a renewal survey has been completed and the new certificate cannot be issued or placed on board the vessel before the expiry date of the existing certificate, the person or the organization authorised by the Administration may endorse the existing certificate and such certificate shall be accepted as valid for a further period which shall not exceed one month from the expiry date.

(7) If a vessel at the time when the certificate expires is on voyage, the Administration may extend the period of validity of the certificate but this extension shall be granted only for the purpose of allowing the vessel to complete its voyage to the place in which it is to be surveyed, and only in cases where it appears proper and reasonable to do so. No certificate shall be extended for a period longer than one month, and a vessel to which such an extension is granted shall not, on its arrival in the port in which it is to be surveyed, be entitled by the virtue of such extension to leave that port without a new certificate. Where the renewal survey is completed the new certificate shall be valid to a

date not exceeding 2 years, or as the case may be, 5 years., from the date of expiry of the existing certificate before the extension was granted.

(8) In special circumstances, as determined by the Administration, a new certificate need not be dated from the date of expiry of the existing certificate shall be valid: a date not exceeding five years from the date of the completion of the renewal survey.

(9) If an annual or periodical or intermediate survey is completed before the period specified in the relevant rule then.-

(a) the anniversary date shown on the relevant certificate shall be amended by endorsement to a date which shall not be more than three months later than the date on which the survey was completed;
(b) the subsequent annual or periodical survey required by the relevant rules shall be completed at the intervals prescribed by the rules using the new anniversary date;
(c) the expiry date may remain unchanged provided one or more annual or periodical surveys, as appropriate, are carried out so that the maximum intervals between the surveys prescribed by the relevant rules are not exceeded.

(10) A certificate issued under this chapter shall cease to be valid in any of the following cases, namely:-

(a) if the relevant surveys and inspections are not completed within the perms specified in this chapter.
(b) if the certificate is not endorsed in accordance with this chapter;
(c) upon transfer of the vessel to another state.

(11) Upon transfer of the vessel to another State a new certificate shall only be issued when the Government issuing the new certificate is fully satisfied that the vessel is in compliance with the requirements of the rules.

(12) In the case of transfer of owner of a vessel between the parties, if requested within three months after such transfer, the Government of the State where the vessel was formerly registered shall, as soon as possible , transmit to the present Administration the

copies of the certificates carried by the vessel before the transfer and, if available, copies of the relevant-survey reports.

14. Form of certificates.- (1) The certificate the exemption certificate and the record of equipment shall be drawn up in a form which shall contain the following, namely :-

(i) The time of validity of the certificate,

(ii) The number of passengers the vessel is fit to carry (inside cabins and on decks) in case of passenger vessels;

(iii) The nature and quantum of the cargo the vessel is fit to carry; and

(iv) Any other prescribed particulars.

(2) If the language used is not English, the text shall include a translation into that language.

15. Availability of certificates.- The certificates issued under this chapter shall be readily available on board for examination at all times.

16. Control.- (1) Every vessel when in a port of another State is subject to control by officers duly authorized by such State Government, in so far as this control is directed towards verifying that the certificate issues under these rules is valid.

(2) Such certificate, if valid, shall be accepted unless there are clear grounds for believing that the vessel or its equipment does not correspond substantially with the particulars of the certificate.

(3) The enforcement of control by the authorities, in case of vessels plying across different State jurisdictions, shall be carried out in the spirit of the provisions under the Act.

(4) In the event of any intervention being necessary the concerned registering authority of the State Government shall be informed.

(5) When exercising control all possible efforts shall be made to avoid a vessel being unduly delayed or detained. If a vessel is unduly delayed – or detained it shall be entitled to compensation for any toss or damage suffered.

CHAPTER III

CONSTRUCTION AND EQUIPMENT

17. Construction And Equipment. (1) The International Regulation on design and construction of vessels stipulates the requirement based on representative wave height in which the vessels are expected to operate. This representative wave height is related to the maximum significant wave height. It is categorized into following three zones, namely:-

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(i) Zone -1 where significant wave height does not exceed 2.0 mtr,
(ii) Zone -2 where significant wave height does not exceed 1 -2 mtr,
(iii) Zone - 3 where significant wave height does not exceed 0.6 mtr.

(2) The zone wise categorizations is adopted for the vessels to be designed and built exclusively for operation in a specified zone, as well as allow a vessel's operation across two or more zones.

(3) Notwithstanding anything contained in any rules or regulations made by the. Central Government in this regard, the parameter applicable for design and construction of vessels shall be as specified in Annexure I.

CHAPTER IV

STABILITY REQUIREMENTS

18. **Intact Stability, Sub-Division And Damage Stability Requirements.-**

1. The vessels propelled by mechanical means shall comply with the applicable intact stability requirements as specified in Annexure II.

2. The intact stability or subdivision and damage stability requirements, as appropriate, for barges carrying under-deck cargoes or having machinery installations or service spaces shall be .determined by the Administration, having regard to, the design and arrangements of cargo spaces, machinery, equipment, deck houses or superstructures.

19. **Inclining Tests And Stability Information.-** (1) Every vessel shall undergo an inclining test upon its completion and the actual displacement and position of the centre of gravity shall be determined for the light vessels condition.

(2) Where alterations are made to a vessel affecting its light condition and the position of the centre of gravity, the vessel shall, if the Administration considers thus necessary, be re-inclined and the stability information amended accordingly.

(3) The Administration may allow the inclining test of an individual vessel to be dispensed with provided that reliable stability information for the exempted vessel can be obtained from basic data available from the inclining test of a sister vessel and that during the construction the same weights of components and weight distribution is observed.

(4) The Administration may dispense with the inclining test of a cargo vessel or a class of vessels especially designed for the carriage of liquids or ore in bulk, when reference to existing data for similar vessel clearly indicates that due to proportions and arrangements more than sufficient transverse metacentric height will be available in all probable loading conditions.

(5) The stability information approved by the Administration shall be supplied to vessels propelled by mechanical means to enable the master to assess with ease and certainty the stability of the vessel under various operating conditions, such information shall include specific instructions to the master warning him of those operating conditions which could adversely-affect-either-stability or the trim of the vessel.

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(6) In particular, the information recommended in Annexure II shall be included as appropriate. A copy of the stability information shall be submitted to the Administration.

(7) The approved stability information shall be kept on board; readily accessible at all times and inspected at the periodical surveys of the vessel to ensure that it has been approved and the condition of the vessel since its approval has not changed.

(8) Where alterations are made to a vessel affecting its stability, calculations shall be prepared and submitted to the Administration for approval. Such revised information shall be supplied to the master and the superseded information removed from the vessel.

(9) The guidance for conducting Inclining Experiment shall be as specified in Annexure-III.

20. **Bilge Pumping Arrangements**.-(1) An efficient bilge pumping arrangement shall be provided which under all practical conditions shall be capable of pumping from and draining any watertight compartment other than a space permanently appropriated for the carriage of fresh water, water ballast, oil fuel or liquid cargoes for which other efficient means for pumping are provided. Where the Administration is satisfied that the safety of the vessels is not impaired the bilge pumping arrangements may be dispensed with in any particular compartment and unmanned barges without machinery spaces.

(2) The arrangement of the bilge and ballast pumping system shall be such as to prevent the possibility of water passing from outside and from water ballast spaces into the cargo and machinery spaces, or from one compartment to another.

(3) All distribution 'boxes and manually operated valves in connection with the bilge arrangements shall be in positions, which are accessible under ordinary circumstances.

(4) At least two bilge pumps connected to the main bilge system shall be provided, one of which may be driven by the propulsion machinery. The total capacity of the required main fire pump referred to in rule 26 of these rules.

(5) Sanitary, ballast and general service pumps provided with suitable connections for bilge suction may be accepted as independent power bilge pumps.

(6) A bilge ejector in combination with an independently driven high pressure sea- water pump may be installed, provided .this arrangement is to the satisfaction of the Administration.

(7) A bilge pipes shall not be led through fuel oil, ballast or double bottom tanks, unless of heavy gauge steel construction.

CHAPTER V

MACHINERY INSTALLATION

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21. **Machinery Installation** Notwithstanding anything contained in any rules or regulations made by the Central Government in this regard, the requirement for the installation of machinery shall be as specified in Annexure IV:

Provided that the provisions of this rule shall not apply to unmanned barges.

CHAPTER VI

ELECTRICAL INSTALLATION

22. **Electrical Installation**.- Notwithstanding anything contained in any rules or regulations made by the Central Government in this regard, the requirements for electrical installation shall be as specified in Annexure V.

CHAPTER VII

FIRE PROTECTION AND FIRE EXTINCTION

23. **Application**.- (1) Unless expressly provided otherwise this chapter shall apply to all vessels propelled by mechanical means and manned barges.
(2) The vessels above 500 gross tons shall comply with the requirements of M.S.(Fire Fighting Appliances) rules as applicable to vessels on coastal voyages.

24. **Fire pumps**.- (1) Every vessel of 150 gross tons and above shall be provided with at least one independent power-operated fire pump, capable of delivering a jet of water as required by rule 25. In vessels of below 150 gross tons a hand operated fire pump is to be provided capable of delivering a jet of water as required by rule 25.

(2) Where two main fire pumps are provided, the capacity of one of the two shall not be less than 40% of their total capacity.

(3) The sanitary, bilge, ballast or general service pumps may be accepted as fire pumps, provided that they are not normally used for pumping oil and that if they are subject to occasional duty for the transfer or pumping of oil fuel, suitable change-over arrangements are fitted.

(4) Every fire pump shall be arranged to draw water directly from the sea and discharge into a fixed fire main, if any.

(5) The centrifugal pumps or other pumps connected to the fire main through which back flow could occur shall be fitted with non-return valves.

(6) Where the fire pumps are capable of developing a pressure exceeding the design pressure of the fire main, water service pipes, hydrants and hoses, relief valves shall be fitted. These valves shall be so placed and adjusted as to prevent excessive pressure in any part of the fire main system.

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(7) The location and arrangement of pumps required for the provision of water for other fire extinguishing systems required by this chapter, their sources of power and their controls shall be installed outside the space or spaces protected by such systems and shall be so arranged that a fire in the space or spaces protected will not put any such system out of action.

(8) For the locations and arrangements of pumps the following shall be taken into account, namely:-

(a) if a fire in any one compartment can put all the fire pumps out of action, there shall be an alternate means to extinguish the fire;

(b) An emergency hand operated fire pump shall be fitted in an accessible position outside the compartment and positioned in a safe place outside the engine room and above the freeboard deck;

(c) The emergency fire pump, sea suction and other valves shall be operable from outside the compartment containing the main fire pump and in an position not likely to be cut off by fire in that compartment.

25. **Fire Mains, Water Service Pipes And Fire Hydrants.**- In every vessel required to carry a fire pump, with water service pipes, hydrants and fire hoses so arranged that at least one powerful jet of water may be directed to any part of the vessel. Hoses shall not be less than 32 mm dia.

26. **Fire Hoses And Nozzles.**- (I) Every vessel shall be provided with a minimum of two fire hoses.

(2) Where hydrants are required in any machinery spaces, each hydrant shall be provided with a fire hose. Where practicable fire hoses shall be connected to the hydrants in such machinery spaces.

(3) Notwithstanding the requirement of sub-rules (1) and (2), the Administration may increase the required number of fire hoses so as to ensure that hoses in sufficient number are available and accessible at all times, having regard to the type of vessel and the nature of trade in which the vessels is engaged.

(4) A single length of fire hose shall not exceed 20 mm.

(5) The fire hoses shall be oil-resistant and of approved material.

(6) The fire hoses of unlined canvas shall have a diameter of not less than 64 mm.

(7) Unless one fire house and nozzle is provided for each hydrant, there shall be complete interchangeability of fire hose coupling or nozzles.

(8) The fire hoses provided in compliance with this regulation shall not be used for any purpose other than fire fighting or testing of the fire appliances.

(9) Every fire hose shall be provided with approved nozzles and the necessary couplings.

(10) The nozzle shall meet the following requirements, namely:-

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(a) the nozzle sizes shall be 12 mm, 16 mm, 19 mm or as near thereto as possible. The larger diameter nozzles may be permitted at the discretion of the Administration;

(b) for accommodation and services spaces, a nozzle size greater than 12 mm need not be used;

(c) for machinery spaces and exterior locations, the nozzle size shall be such as to obtain the maximum discharge possible from the required jets at the pressure specified in regulation 3.1 from the smallest pump, provided that a nozzle size greater that 19 mm need not be used.

(11) In tankers and in machinery spaces of category A the nozzles provided for fire hoses shall be of an approved dual-purpose type (i.e spray/jet type) incorporating a shutoff.

27. **Portable Fire Extinguishers General Requirements.-** (1) All fire extinguishers shall be approved types and designs.

(2) The capacity of required portable fluid extinguishers shall be not more than 13.5 liters and not less than 9 liters.

(3) The capacity of the required portable carbon dioxide extinguishers, the portable mechanical foam extinguishers and the portable dry powder fire extinguishers shall be at least equivalent to that of a 9 liters fluid extinguisher

(4) All required portable fire extinguishers shall not exceed 23 kg in weight in a fully charged condition and shall be at least as portable as 13.5 liters fluid fire extinguisher

(5) The spare charges shall be provided for every required portable fire extinguisher provided in compliance with the Rules, except that for each such fire extinguisher which is of a type that cannot readily be recharged while the vessels is at enroute an additional fire extinguisher of the same type, or its equivalent, shall be provided in lieu of a spare charge.

(6) The fire extinguishers containing an extinguishing medium which, in the opinion of the Administration, either by itself or under expected conditions of use off toxic gases in such quantities as to endanger persons shall not be permitted.

(7) Fire extinguishers shall be periodically examined and subjected to following tests, namely:-

(a) The condition of the charges of extinguishers other than carbon dioxide extinguishers shall be checked annually. If on checking there is any indication of deterioration the charges shall be renewed and, in any case, at least every four years. A record of the annual check is to be fixed to each fire extinguisher;

(b) The carbon dioxide extinguisher and gas propellant cartridges of other extinguishers shall be examined externally for corrosion and for loss of content annually. They shall be recharged or renewed if the loss of gas by weight exceeds 10% of the original charge a stamped on the bottles or cartridge, or have corroded excessively externally;

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(c) All portable fire extinguishers, other than carbon dioxide extinguishers, shall be tested by hydraulic pressure once every four years and the date of such test legibly marked on the extinguisher;

(d) The new carbon dioxide extinguishers, which do not require to be recharged, shall be tested by hydraulic pressure twenty years after manufacture" and thereafter every five years;

(e) The carbon dioxide extinguishers, which require recharging, shall be pressure tested before being recharged if four years elapsed since the last hydraulic test was carried out.

(8) One of the portable fire extinguishers intended for use in any space shall be stowed near the entrance to that space.

(9) The halon fire extinguishers shall not be used.

(10) Each fire extinguisher shall as far as it is practicable be clearly marked on the front with label of durable material containing the following minimum information in English or in the official language as may be specified by the Administration, namely:-

(a) name of manufacturer, year of manufacture and serial number,
(b) type of fire for which the extinguisher is suitable,
(c) type and quantity of extinguishing medium,
(d) approval details,
(e) pictorial and legible operating instructions,
(f) intervals for recharging,
(g) temperature range over which the extinguisher will satisfactorily,
(h) test pressure, and
(i) date last tested.

28. **Portable fire extinguishers to he carried in accommodation spaces, services spaces and control stations.- (1)** In every vessel there shall be provided a sufficient number of approved portable fire extinguishers to ensure that at least one extinguisher

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will be readily available for use in any part of accommodation spaces, service space, and control stations. At least three fire extinguishers shall be provided in such vessel. The arrangements of such fire extinguishers shall be to the satisfaction of the Administration.

(2) In every vessel, where in the opinion of the Administration, electrical installations fitted in accommodation, service and control stations constitute hazard of fire or explosion, additional fire extinguishers suitable for extinguishing electrical fires shall be provided.

(3) (a) The fire buckets are to be provided one per each member of the crew but need not exceed 20. At least 50% of the buckets are to be provided with lanyards,
(b) At least two fire buckets shall be provided which shall be of a material, which is not readily flammable. They shall be painted red, clearly marked with the word **'FIRE'** and provided with lanyards of sufficient length, having regard to the size of the vessel,
(c) The capacity of each of the fire buckets referred to in this part shall be at least nine liters,
(d) The fire buckets provided in compliance with this regulation shall not be used for any other purpose than extinguishing fire.

29. **Fire extinguishing systems in machinery spaces.**- (1) The machinery spaces containing internal combustion type machinery having a total power output of less than 750 KW shall at least be provided with,-

(a) at least two portable fire extinguishers suitable for extinguishing oil fires, and
(b) one sand box with scoop suitable for a quantity of sand not less than 0.075 cum.
(c) for vessels of length 30 meters" and above, a non-portable foam extinguisher of 45 liters is to be provided.

(2) The machinery spaces containing electrical installations shall be provided with one or more fire extinguishers suitable for extinguishing electrical fire, as deemed necessary by the Administration, having regard to the fire hazards of electrical origin. One or more of the fire extinguishers required by this rule may be included in the fire extinguishers required.

(3) Where, in the opinion of the Administration a fire hazard exists in any machinery space for which no specific provision for fire-extinguishing appliances are prescribed in sub-rules (1) and (2), there shall be provided in, or adjacent to, that space a number of approved portable fire extinguishers or other means of fire extinction to the satisfaction of the Administration.

30. **Fireman's outfit.**- (1) Every passenger vessel having sleeping accommodation for passengers shall be provided with a fireman's outfit.

(2) A fireman's outfit shall consists of personal equipment comprising.-

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(a) a protective clothing of material to protect the skin from the heat radiating from the fire and from burns and scalding by steam. The outer surface shall be water-resistant,

(b) boots and gloves of rubber or other electrically non-conducting material,

(c) a rigid helmet providing effective protection against impact,

(d) an electric safety lamp (hand lantern) of an approved type with a minimum burning period of three hours;

(e) an axe to the satisfaction of the Administration, and

(f) a breathing apparatus of an approved type.

(3) **The breathing apparatus may be either. -**

(a) a smoke helmet or smoke mask which shall be provided with a suitable air pump and a length of air hose sufficient to reach from the open deck, well clear of hatch or doorway, to any part of the holds or machinery spaces. If in order to comply with this subparagraph, an air hose exceeding 36 meters in length would be necessary, a self-contained breathing apparatus shall be substituted or provided in addition as determined by the Administration; or

(b) a self-contained compressed-air-operated breathing apparatus, the volume of air contained in the cylinders of which shall be at least 1200 liters, or other self- contained breathing apparatus which shall be capable of functioning for at least 30 minutes. A number of spare charges, suitable for use with the apparatus provided, shall be available on board to the satisfaction of the Administration.

(4) For each breathing apparatus a fire proof lifeline of sufficient length and strength shall be provided capable of being attached by means of a snap hook to the harness of the apparatus or to a separate belt in order to prevent the breathing apparatus becoming detached when the lifeline is operated.

(5) The Administration may require additional sets of personal equipments and breathing apparatus, having due regard to the size and type of the vessels.

(6) The fireman's outfits or sets of personal equipment shall be so stored as to be easily accessible and ready for use and, where more than one fireman's outfits or more than one set of personal equipment is carried, they shall be stored in widely separated positions.

31. Fireman's axe.- (1). Every vessel shall be provided with at least one fireman's axe in an easily accessible location outside the machinery, accommodation and service spaces.

32. Fire control plan.- (1) In vessels having machinery spaces of category 'A' there shall be provided a permanently exhibited fire control plan or equivalent to the satisfaction of the Administration.

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(2) In all such vessels, fire control plans shall be kept up-to-date. Description in such plans shall be in the official language as prescribed by the Administration and, if required, in the English language.

(3) In addition, instructions concerning the maintenance and operation of all the equipment and installations on board for the fighting and containment of fire shall be kept under one cover, readily available in an accessible position.

33. **Acceptance of substitutes**.- Where in this chapter a type of appliance, apparatus, extinguishing medium or arrangement is specified, any other type of appliance may be allowed provided the Administration is satisfied that it is not less efficient.

CHAPTER VIII

FIRE SAFETY MEASURES

34. **General application**.- (1) This chapter applies to vessels propelled by mechanical means and to manned barges, which are provided with machinery spaces of category A to maintain its normal habitable and operational condition.

(2) The vessels and manned barges which are provided machinery spaces other than machinery spaces of category 'A' shall comply with the provisions of this chapter to the satisfaction of the Administration.

35. **Structural fire protection**.- (I) The hull, superstructures, structural bulkheads, decks and deckhouses of Vessels propelled by mechanical means shall be constructed of steel or other equivalent material.
(2) The bulkhead and decks separating the machinery spaces of category A from control stations, corridors, accommodations spaces, stairways, service spaces and cargo spaces shall be so constructed as to be capable of preventing the spread of fire to the unexposed side.

(3) The interior .stairways below the weather deck shall be of steel or other material having acceptable fire resisting properties.

(4) The insulation materials in accommodation spaces, service spaces, control stations and machinery spaces except domestic refrigeration compartments, shall be non-combustible materials, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have qualities of resistance to the propagation of flame to the satisfaction of Administration.

(5) All exposed surfaces in corridors and stairways enclosures and surfaces including grounds in concealed or in accessible spaces in accommodation spaces, service spaces and control stations shall have low flame-spread characteristic.

(6) The paints, varnishes and other finishes used on exposed interior surfaces shall not offer an undue fire hazard in the opinion of the administration and shall not be capable of producing excessive quantities of smoke.

(7) The primary deck coverings, if applied within accommodation spaces, service spaces and control stations shall be of approved materials, which will not readily ignite or give rise to toxic or explosive hazards at elevated temperatures, in existing vessels, the Administration may, in lieu of applying the requirements fully, apply such requirements only to deck coverings within accommodation spaces on decks forming the crown of machinery spaces and cargo spaces.

36. **Means of escape and control of ventilation.**- (1) The means of escape shall be provided as follows:-

(a) The stairways and ladders shall be so arranged as to provide means of escape from all accommodation spaces and from spaces in which the crew is normally employed, other than machinery spaces, ready means of escape to the open deck and thence to the survival craft;

(b) Two means of escape shall be provided from machinery spaces of category, A which shall be as widely separated as possible. The vertical escapes shall be by means of steel ladders or other means acceptable to the administration as suitable alternative. Where the size of such machinery spaces makes it impracticable, one of these means of escape may be dispensed with provided that the exit is to the satisfaction of the Administration.

(c) From machinery spaces other than those category 'A', escape routes shall be provided to the satisfaction of the Administration having regard to the nature and location of the spaces and whether persons are normally employed in such spaces;

(d) No dead-end corridors having a length of more than 7 meters shall be accepted. A dead-end corridor is a corridor or part of a corridor from which there is only one escape route;

(e) The width and continuity of the means of escape shall be to the satisfaction of the Administration.

(2) The following provisions shall apply to machinery spaces of category 'A' and where the Administration considers it desirable, to the other machinery spaces.-

(a) the means of control shall be provided for opening and closure of skylights, openings and closure of windows in machinery spaces boundaries, closure of openings in funnels, which "normally allow exhaust ventilation, and closure of ventilator dampers;

(b) The means of control shall be provided for permitting for release of smoke;

(c) The means of control shall be provided for stopping forces and induced draught fans, fuel oil transfer pumps, fuel oil unit pumps and to similar fuel pumps;

(d) The controls required in clause (j) and (k) shall be located outside the space concerned, where they may be cut off in the event of fire in the space they serve;

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(e) The number of skylights, doors, ventilators for natural ventilation, openings in funnel to permit exhaust ventilation and other openings to machinery spaces shall in accordance with the requirements of provisions of these rules;

(f) The skylights shall not contain glass panels. The skylights containing wire reinforced glass or toughened safety glass panels may be permitted provided that they are fitted with external shutters of steel or other equivalent material permanently attached. Suitable arrangements shall be made to permit the release of smoke in the event of fire from the spaces to be protected;

(g) The windows shall not be fitted in machinery spaces boundaries. This does not preclude the use of glass for windows in control rooms within the machinery space;

(h) The doors fitted in machinery space boundaries shall as far as practicable be equivalent in resisting fire to the divisions forming such boundaries. If such doors are not weather-light or water-tight they shall be self-dosing;

(i) The ventilation system of each of the following groups of spaces shall be entirely separated from each other. -Me arrangements of each ventilation system shall be such that fire in one space shall not readily spread to:

(i) machinery spaces;
(ii) galleys,
(iii) cargo spaces
(iv) accommodation spaces and control stations;

(j) The power ventilation of accommodation spaces, service spaces, cargo spaces, control stations and machinery spaces shall be capable of being stopped from an easily accessible position located outside the space being served. This position shall not be readily cut off in the event of fire in the space served. The means provided for stopping the power ventilation of machinery spaces shall be entirely separated from the means provided for stopping ventilation of other spaces;

(k) The main inlets and outlets of all ventilation systems shall be capable of being ctosed from outside the spaces being ventilated.

37. **Ventilation of tanks and cofferdams**.- (1) Subject to the provision of rule 44 and 45, all tanks, cofferdams and other enclosed spaces, where dangerous vapours and liable to be trapped, shall be provided with effective means for ventilation and access to the satisfaction of the Administration having regard to the intended services.

(2) In tankers and barges carrying flammable liquid cargo in bulk (other than crude oil or petroleum products of low flashpoint) there shall be provided for ventilation of cargo tanks a venting system shall be to the satisfaction of the Administration.

38. **Miscellaneous items**.- (1) Where bulkheads, decks ceilings or linings are penetrated for the passage of electric cables, pipes, trunks etc. or for the fitting of ventilation terminals, lighting fixtures and similar devices, or for girders, beams or other structural members, arrangements shall be made to ensure that the fire integrity is not impaired.

(2) The Administration may permit the conveying of oil and combustible liquid through accommodation and service spaces provided that the pipes conveying oil or combustible liquids are of a material approved by the Administration having regard to the fire risk.

(3) The material readily rendered ineffective by heat shall not be used for overboard scuppers including sanitary discharges and other outlets which are close to the waterline and where the failure of the material in the event of fire would give rise to danger of flooding.

(4) The electric radiators, if. used, shall be fixed in position and so constructed as to reduce fire risks to a minimum. No such radiators shall be fitted with an element so exposed that clothing, curtains, or other similar materials can be scorched or set on fire by heat from the element or equivalent material.

(5) The cellulose nitrate based films shall not be used for cinematography installations.

(6) The paint stockers of more than 10 square-meters area shall be provided with adequate measures to control fire in such spaces to recognized standards.

(7) In spaces where penetration of oil products is possible, the surface of insulation shall be impervious to oil or oil vapour.

39. **Arrangements for fuel and other oil tanks.- (1)** The following limitations shall apply to the use of oil as fuel, namely:- (a) except as otherwise permitted by this sub-rule, no oil fuel with a flash point of less than 60 ° C shall be used;

(b) in emergency generators oil fuel with a flashpoint of not less than 43 ° C may be used;

(c) subject to such additional precautions as it may consider necessary and on condition that the ambient temperature of the space in which such oil fuel is stored or used shall not be allowed to rise to within 10 ° C below the flashpoint of the oil fuel, the Administration may permit the general use of oil fuel having a flashpoint of less than 60° C but not less than 43 ° C;

(d) in cargo vessels the use of fuel having a lower flashpoint than otherwise specified in this paragraph, for example crude oil, may be permitted provided that such fuel is not stored in any machinery space and subject to the approval by the Administration of the complete installations;

(e) the flashpoint of oils shall be determined by an approved closed cup method.

(2) In a vessel in which oil fuel is used, the arrangements for the storage, distribution and utilization of the oil fuel shall be such as to ensure the safety of the vessel and persons on board and shall at least comply with the following provisions.-

(a) as far as practicable, parts of the oil fuel system containing healed oil under pressure exceeding 0.18N/mm² shall not be placed in concealed position such that defects and leakage cannot readily be observed. The machinery spaces in way of such parts of the oil fuel system shall be adequately illuminated;

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(b) as far as practicable, oil fuel tanks shall be part of the vessel's structure and shall be located outside machinery spaces of category 'A'. Where oil fuel tanks, other than double bottom tanks, are necessarily located adjacent to or within machinery spaces of category 'A', at least one of their vertical sides shall be contiguous to the machinery space boundaries, and shall preferably have a common boundary with the double bottom tanks where fitted, and the area of the tank boundary common with the machinery spaces shall be kept to a minimum. Where such tanks are situated within boundaries of machinery spaces of category 'A' they shall not contain oil fuel having a flashpoint of less than 60° C. In general the use of free standing oil fuel tanks shall be avoided. Where permitted, they shall be placed in an oil-tight spill tray of ample size having a suitable drain pipe leading to a safe place to the satisfaction of the Administration;

(c) every oil fuel pipe, which if damaged, would allow oil to escape from a storage, settling or daily service tank situated above the double bottom shall be fitted "with a stock or valve directly on the tank capable of being closed from a safe position outside the space concerned in the event of a fire occurring in the space in which such tanks are situated. Tanks of not more than 250 liters capacity need not comply with this clause;

(d) safe and efficient means of ascertaining the amount of oil fuel contained in any oil fuel tank shall be provided. Sounding pipes shall not terminate in any space where the risk of ignition of spillage from the sounding pipe might arise. In particular they shall not terminate in accommodation spaces. Other means of ascertaining the amount of oil fuel contained in any fuel tank may be permitted, provided that the failure of such means or overfilling of the tanks will not permit release of fuel. The Administration may permit the use of oil level gauges with flat glasses and self-closing valves between the gauges and fuel tanks. Cylindrical gauge glasses may also be permitted in free standing oil fuel tanks provided that they are suitably protected and fitted with self-dosing valves to the satisfaction of the administration;

(e) provisions shall be made to prevent over-pressure in any oil tank or in any part of the oil fuel system, including the filling pipes. Relief valves and air or over- flow pipes shall discharge to a position which in the opinion of the administration is safe. The open ends of air pipes shall be fitted with wire gauze.

(3) The arrangements for storage, distribution and utilization of oil used in pressure lubrication systems shall be such as to ensure the safety of the vessel and persons on board. The arrangements made in machinery spaces of category 'A' and whenever practicable in other machinery spaces shall at least comply with the provisions of clauses (a), (c) to (e) of sub-rule (2), as they apply to oil fuel arrangements, except that this does not preclude the use of slight-flow glasses in lubricating systems provided that they are shown by test to have a suitable degree of fire resistance.

(4) The arrangements for storage, distribution and utilization of other flammable oils employed under pressure in power transmission systems, control and activating systems and heating systems shall be such as to ensure the safety of vessels and persons on board.
In locations where means of ignition are present, such arrangements shall at least comply with the provisions of clauses (d) and (e) of sub-rule (2), in respect of strength and construction.

40. **Spillage or leakage of oil.**- (1) No oil fuel tank or lubricating oil tank or any other flammable oil tank shall be situated where spillage or leakage there from can constitute a hazard

by failing on heated surfaces. Precautions shall be taken to prevent any oil that may escape under pressure or oil leakage from any pump, filter, piping system or heat exchanger from coming into contact with healed surfaces or enter into machinery air intakes. Where necessary a suitable spill tray or gutter screen or .other suitable arrangement shall be provided to allow oil to drain to a safe place in the event spillage or leakage of oil from such an oil tank, machinery, equipment or system. The number of joints in piping systems shall be kept to a minimum practicable.

41. **Pipes and fittings**.- The pipes, fittings and valves handling fuel oil, lubrication oil and other flammable oils shall be of steel or other approved material, except that restricted use of flexible pipes shall be permissible in positions where the administration is satisfied that they are necessary. Such flexible pipes and end attachments shall be of approved fire-resisting materials of adequate strength and shall be constructed to the satisfaction of the administration.

42. **Use of forepeak tanks for carrying oil**.- The oil fuel, lubrication oil and other liquid substances flammable or harmful to the marine environment shall not be carried in forepeak tanks.

43. **Carriage of dangerous goods for vessel's use**- The vessels carrying dangerous goods, inclusive of materials hazardous when carried in bulk, are to comply with the requirements of Annexure VII.

44. **Fire projection arrangements in cargo spaces**.- (1) (a) Where vessels are engaged in the carriage of dangerous goods, a fixed gas fire-extinguishing system or a fire- extinguishing system which in the opinion of the Administration gives equivalent protection for the cargoes carried shall be provided in the cargo spaces,

(b) In addition to complying with the applicable requirements of clause (a), vessels Intended for the carriage of dangerous goods shall comply with the special requirements as applicable depending on the cargo carried, to the satisfaction of the administration.

(2) The Administration shall provide the vessel with an appropriate document as evidence of compliance relating to construction and equipment with the requirements of this rule.

45. **Fire safety measures for tankers** (l)(a) Unless expressly provided otherwise, This Regulation shall apply to tankers carrying crude oil and petroleum products having a flashpoint not exceeding 60° C (closed cup test), as determined by an approved flashpoint apparatus, and a Reid vapour pressure which is below atmospheric pressure and other liquid products having a similar fire hazard.

(b) Where liquid cargoes other than those referred to in sub-rule (1) which introduce additional fire hazards are intended to be carried, additional safety measures shall be required to the satisfaction of the Administration.

(c) The takers carrying petroleum products having a flashpoint exceeding 60° C (closed cup test) as determined by an approved flashpoint apparatus shall comply with the provisions of rules 34 to 44, they shall be fitted with a fixed deck foam system which shall comply with the provisions of rule 39.

(2) The location and separation of machinery and accommodation spaces are to be as follows, namely:-

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(a) The machinery spaces shall be positioned aft of cargo tanks and stop tanks; they shall also be situated aft of cargo pump-rooms and cofferdams, but not necessarily aft of the oil fuel bunker tanks. Any machinery space shall be isolated from cargo tanks .and stop tanks by cofferdams, cargo pump- rooms, oil fuel bunker tanks or ballast tanks. The pump-rooms containing pumps and their accessories for ballasting those spaces situated adjacent to cargo tanks and stop tanks and pumps for oil fuel transfer shall be considered as equivalent to a cargo pump-room within the context of this rule, provided that such pump-rooms have the same safety standard as that required for cargo pump-rooms;

(b) The accommodation spaces, main cargo control stations, control stations and service spaces (excluding isolated cargo handling gear stockers) shall be positioned aft of all cargo tanks, stop tanks, and spaces which isolate cargo or slop tanks from machinery spaces but not necessarily aft of the oil fuel bunker tanks and ballast tanks, but shall be arranged in such a way that a single failure of a deck or bulkhead shall not permit the entry of gas or fumes from the cargo tanks into an accommodation space, main cargo control stations, control station, or service spaces;

(c) Nevertheless, where deemed necessary, the Administration may permit accommodation spaces, main cargo control stations, control stations, and service spaces forward of the cargo tanks, slop tanks and spaces which isolate cargo and slop tanks from machinery spaces, but not necessarily forward of oil fuel bunker tanks or ballast tanks. The machinery spaces, other than those of category 'A', may be permitted forward of the cargo tanks and slop tanks provided they are isolated from the cargo tanks and slop tanks by cofferdams, cargo pump-rooms, oil fuel bunker tanks or ballast tanks. All of the above spaces shall be subject to an equivalent standard of safety and appropriate availability of fire-extinguishing arrangements being provided to the satisfaction of the Administration. The accommodation spaces, main cargo control spaces, control stations and service spaces shall be arranged in such a way that a single failure of a deck or bulkhead shall not permit the entry of gas or fumes from the cargo tanks into such spaces.

(d) The resources shall be provided to keep deck spills away from the accommodation and service areas. This may be accomplished by provision of a permanent continuous coming of a suitable height extending from side to side. Special consideration shall be given to the arrangements associated with stern loading.

(e) The exterior boundaries of superstructures and deckhouses enclosing accommodation and including any overhanging decks which support such accommodation shall be constructed of steel and insulated to "A-60" standard for

the whole of the portions which face the cargo area and on the outward sides for a distance of 3 meters from the end boundary facing the cargo area.

(f) (i) except as permitted in sub-clause (ii) below, access doors, air inlets and openings to accommodation spaces, service spaces, control stations and machinery spaces shall not face the cargo area. They shall be located on the transverse bulkhead not facing the cargo area or on the outboard side of the superstructure or deckhouse at a distance of at least 4 percent of the length of the vessels but not less than 3 meters from the end of the

superstructure or deckhouse facing the cargo area. This distance need not exceed 5 meters,

(ii) the wheelhouse doors and wheelhouse windows may be located within the limits specified in sub-clause (i), so long as they are designed to ensure that the wheelhouse can be made rapidly and efficiently gas and vapour tight,

(iii) the windows and side scuttles facing the cargo area and on the sides of the superstructures and deckhouses within the limits specified in sub-clause (i) shall be of the fixed, non-opening type, with suitable deadlights as may be deemed necessary by the Administration.

(3) The fire integrity of bulkheads and decks are to be as per structural fire protection requirements, as specified in rule 35.

(a) The skylights to cargo pump-rooms shall be of steel, shall not contain any glass and shall be capable of being closed from outside the pump-room,

(b) The fire integrity of bulkheads and decks, in addition to the requirements of rule 35, the bulkheads facing the cargo area are to comply with the clause (e) of sub-rule (2) and sub-clause (i) of clause (f) of sub-rule (2).

(4) The venting, purging, gas-freeing and ventilation requirements for the cargo tanks are to comply with the following requirements, namely:-

(I) (A) The venting systems of cargo tanks are to be entirely distinct from the air pipes of the other compartments of the vessel. The arrangements and position of openings in the cargo tank deck from which emission of flammable vapours can occur shall be such as to minimize the possibility of flammable vapours being admitted to enclosed spaces containing a source of ignition, or collecting in the vicinity of deck machinery and equipment which may constitute an ignition hazard. In accordance with this general principle the criteria in sub-rules (2) to (9) shall apply.

(B) The venting arrangements shall be so designed and operated as to ensure that neither pressure nor vacuum in cargo tanks shall exceed design parameters and be such as to provide for:

(a) the flow of the small volumes of vapour, air or inert gas mixtures caused by thermal variations in a cargo tank in all cases through pressure or vacuum valves; and

(b) the passage of large volumes of vapour, air or inert gas mixtures during cargo trading and ballasting, or during discharging,

(c) a secondary means of allowing full flow relief of vapour, air or inert gas mixtures to prevent over-pressure or under pressure in the event of failure of the arrangements in clause (b). Alternatively, pressure sensors may be fitted in each tank protected by the arrangement required in clause (b), with a monitoring system in the vessel's cargo control room or the position from which cargo operations are normally carried out. Such monitoring equipment shall also provide an alarm facility which is activated by detection of over-pressure or under-pressure conditions within a tank.

(C) (a) The venting arrangements in each cargo tank may be independent or combined with other cargo tanks and may be incorporated into the inert gas piping;

(b) Where the arrangements are combined with other cargo tanks, either stop valves or other acceptable means shall be provided to isolate each cargo tank. Where stop valves are fitted, they shall be provided with stocking arrangements which shall be under the control of the responsible vessel's officer. There shall be a clear visual indication of the operational status of the valves or other acceptable means. Where tanks have been isolated, it shall be ensured that relevant isolating valves are opened before cargo trading or ballasting or discharging of those tanks is commenced. Any isolation must continue to permit the flow caused by thermal variations in a cargo tank in accordance with sub-clause (a) of clause (B);

(c) if cargo loading and ballasting or discharging of a cargo tank or cargo tank group is intended, which is isolated from a common venting system, that cargo tank or cargo tank group shall be fitted with a means for over-pressure or under-pressure protection as required in sub-clause (a) of clause (B);

(d) The venting arrangements shall be connected to the top of each cargo tank and shall be self-draining to the cargo tanks under all normal conditions of trim and list of the vessel. Where it may not be possible to provide self-draining lines, permanent arrangements shall be provided to drain the vent lines to a cargo tank;

(e) The venting system shall be provided with devices to prevent the passage of flame into the cargo tanks. The design, testing and locating of these devices shall comply with the requirements established by the Administration which shall contain at least the standards adopted by the organization;

(f) The provision shall be made to guard against liquid rising in the venting system to a height which would exceed the design head of cargo tanks. This shall be accomplished by high-level alarms or overflow control systems or other equivalent means, together with gauging devices and cargo tank filling procedures;

(g) The openings for pressure release required by sub-clause (b) of clause (B) shall,-

(i) have as great a height as is practicable above the cargo tank deck to obtain maximum dispersal of flammable vapours but in no case less than 2 meter above the cargo tank deck,

(ii) be arranged at the furthest distance practicable but not less than 5 meter from the nearest air intakes and openings to enclosed spaces containing a source of

ignition and from deck machinery and equipment which may constitute an ignition hazard.

(h) the pressure or vacuum valves required by sub-clause (a) of clause (B) may be provided with a bypass arrangement when they are located in a vent main or masthead riser. Where such an arrangement is provided there shall be suitable indicators to show whether the bypass is open or closed;

(i) (i) the vent outlets for cargo loading, discharging and ballasting required by sub-clause (b) of clause (B)shall,-

(ia) permit the free flow of vapour mixtures, or

(ib) permit the throttling of the discharge of the vapour mixtures to achieve a velocity of not less than 30 miles,

(ii) be so arranged that the vapour mixture is discharged vertically upwards;

(iii) where the method is by free flow of vapour mixtures, be such that the outlet shall be not less than 6 meters above the cargo tank deck or fore and aft gangway if situated within 4 meters of the gangway and located not less than 10 meters measured horizontally from the nearest air intakes and openings to enclosed spaces containing a source of ignition and from deck machinery and equipment which may constitute an ignition hazard;

(iv) where the method is by high-velocity discharge, be located at a height not less than 2 m above the cargo tank deck and not less than 10 m measured horizontally from the nearest air intakes and openings to enclosed spaces containing a source of ignition and from deck machinery and equipment which may constitute an ignition hazard. These outlets shall be provided with high velocity devices of an approved type,

(v) be designed on the basis of the maximum designed loading rate multiplied by a factor of at least 1.25 to take account of gas evolution, in order to prevent the pressure in any cargo tank from exceeding the design pressure. The master shall be provided with information regarding the maximum permissible loading rate for each cargo tank and in the case of combined venting systems, for each group of cargo tanks;

(II) The arrangements for purging and/or gas-freeing shall be such as to minimize the hazards due to the dispersal of flammable vapours in the atmosphere and to flammable mixtures in a cargo tank. Accordingly:-

(a) when the vessel is not provided with an inert gas system, the operation shall be such that the flammable vapour is discharged initially,-

(i) through the vent outlets as specified in paragraph clause (i) if sub-rule (1); or

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(ii) through outlets at least 2 meters above the cargo tank deck level with a vertical efflux velocity of at least 30 miles maintained during the gas-freeing operation;

(iii) through outlets at least 2 meters above the cargo tank deck level with a vertical efflux velocity of at least 20 miles and which are protected by suitable devices to prevent the passage of flame.

(b) When the flammable vapour concentration at the outlet has been reduced to 30% of the lower flammable limit, gas-freeing may thereafter be continued at cargo tank deck level.

(III) (a) The cargo pump-rooms shall be mechanically ventilated and discharges from the exhaust fans shall be led to a safe place on the open deck. The ventilation of these rooms shall have sufficient capacity to minimize the possibility of accumulation of flammable vapours. The number of changes of air shall be at least 20 per hour, based upon the gross volume of the space. The air ducts shall be arranged so that all of the space is effectively ventilated. The ventilation shall be of the suction type using fans of the non-sparking type;

(b) The arrangement of ventilation inlets and outlets and other deckhouse and superstructure boundary space openings shall be such as to complement the provisions of clause (a). Such vents, especially for machinery spaces, shall be situated as far aft as practicable. Due consideration in this regard shall be given when the vessel is equipped to load or discharge at the stern. Sources of ignition such as electrical equipment shall be so arranged as to avoid an explosion hazard.

(5) All the spaces in double hull and double bottom shall be fitted with suitable connections for the supply of air.

(a) Suitable portable instruments for measuring oxygen and flammable vapour concentrations shall be provided. In selecting these instruments, due attention shall be given to their use in combination with the fixed gas-sampling-line systems referred to in clause (b).

(b) Where the atmosphere in double hull spaces cannot be reliably measured using flexible gas sampling hoses, such spaces shall be fitted with permanent gas sampling lines. The configuration of such line systems shall be adapted to the design of such spaces.

(c) The materials of construction and dimensions of gas sampling lines shall be such as to prevent restriction. Where plastic materials are used, they shall be electrically conductive.

(2) All tankers shall be equipped with at least one portable instrument for measuring flammable vapour concentrations, together with a sufficient set of spares. Suitable means shall be provided for the calibration of such instruments.

(6) The tankers of less than 20,000 tonnes deadweight shall be provided with a deck foam system complying with the requirements of clause 7.

(7) The tankers are to be provided with a deck foam systems which are dealt with as follows:-

(a) The arrangements for providing foam shall be capable of delivering foam to the entire cargo tanks deck area as well as into any cargo tank the deck of which has been ruptured;

(b) The deck foam system shall be capable of simple and rapid operation. The main control station for the system shall be suitably located outside the cargo area, adjacent to the accommodation spaces and readily accessible and operable in the event of fire in the areas protected;

(c) The rate of supply of foam solution shall be not less than the greatest of the following:-

(i) 0.6 liters/min per square metre of cargo tanks deck area, where cargo tanks deck area means the maximum breadth of the vessel multiplied by the total longitudinal extent of the cargo tank spaces,

(ii) 6 liters/min per square metre of the horizontal sectional area of the single tank having the largest such area; or

(iii) 3 liters/min per square metre of the area protected by the largest monitor, such area being entirely forward of the monitor, but not less than 1,250 liters/min.

(iv) the foam from the fixed foam system shall be supplied by means of monitors and foam applicators. At least 50% of the foam solution supply rule required in sub-clause (i) and (ii) shall be delivered from each monitor. On tankers of less than 4,000 tonnes deadweight the Administration may not require installation of monitors but only applicators. Nevertheless, in such a case the capacity of each applicator shall be at least 25% of the foam solution supply rate required in sub-clause (i) and (ii),

(v) (ia) the number and position of monitors shall be such as to comply with the provision. The capacity of any monitor shall be at least 3 liters/min of foam solution per square metre of deck area protected by that monitor, such area being entirely forward of the monitor. Such capacity shall be not less than 1,250 liters/min,

(ib) the distance from the monitor to the farthest extremity of the area forward of that monitor shall not be more than 75% of the monitor throw in still air conditions;

(vi) a monitor and hose connection for a foam applicator shall be situated both port and starboard at the front of the poop or accommodation spaces facing the cargo tanks deck. On tankers of less than 4,000 tonnes deadweight a hose connection for a foam applicator shall be situated both port and starboard at the front of the poop or accommodation spaces facing the cargo tanks deck;

(vii) the applicators shall be provided to ensure flexibility of action during fire - fighting operations and to cover areas screened from the monitors. The capacity of any applicator shall be not less than 400 liters / min and the applicator throw in still air conditions shall be not less than 15 meters. The number of foam applicators provided shall be not less than four. The number and disposition of foam main outlets shall be such

that foam from al least two applicators can be directed on to any part of the cargo tanks deck area;

(viii) the vapour shall be provided in the foam main, and in the fire main when this is an integral part of the deck foam system, immediately forward of any monitor position to isolate damaged sections of those mains;

(ix) an operation of a deck foam system at its required output shall permit the simultaneous use of the minimum required number of jets of water at the required pressure from the fire main.

(8) The cargo pump rooms are to be provided with fixed fire-extinguishing systems meeting the following requirements, namely:-

(a) Each cargo pump-room shall be provided with one of the following fixed fire-extinguishing systems operated from a readily accessible position outside the pump room. The cargo pump-rooms shall be provided with a system suitable for machinery spaces of category 'A';

(i) either a carbon dioxide or a halogenated hydrocarbon system to the satisfaction of the administration shall be provided,
(ia) the alarms shall be safe for use in a flammable cargo vapour or air mixture,
(ib) a notice shall be exhibited at the controls staling that due to the electrostatic ignition hazard, the system is to be used only for fire extinguishing and not for inverting purposes,

(ii) a high-expansion foam system to the satisfaction of the Administration shall be provided. The foam concentrate used shall be suitable for extinguishing fires involving the cargoes carried,

(iii) a fixed pressure water-spraying system shall be provided to the satisfaction of the Administration;

(b) Where the extinguishing medium used in the cargo pump-room system is also used in systems serving other spaces, the quantity of medium provided or its delivery rate need not be more than the maximum required for the largest compartment.

46. **Carriage of dangerous goods.**- The requirements of Annexure 7 shall apply to the carriage of dangerous goods classified therein, carried in vessels and barges in packaged from or in solid from in bulk as appropriate.

CHAPTER - IX

LIFE SAVING APPLIANCES

47. Life Saving Appliances.- Notwithstanding anything contained in any rules or regulations made by the Central Government in this regard, the requirement for the life saving appliances shall be as specified in Annexure VI.

Provided that only the life rafts and life buoys to be provided on boat. The life jackets not recommended, as it is impractical to store, maintain and use.

CHAPTER - X

RADIO COMMUNICATIONS

48. Radio Communications.- Every vessel and manned barge shall be provided with means of communication (e.g.: VHF radio telephone, of suitable range with back up battery mobile phone, etc.) to maintain continuous bridge to bridge communication and also bridge to land stations to the satisfaction of the administration.

CHAPTER - XI

NATIONAL WATERWAY, SAFETY OF NAVIGATION AND SHIPPING

PART-1

49. Definitions.- For the purpose of this Chapter, unless the context otherwise requires,.-

(a) "Authority" means the Inland Waterways Authority of India, constituted under sections of the Inland Waterways Authority of India Act, 1985 (82 of 1985);

(b) "channel marks" includes bamboo marks, buoys and beacon;

(c) "Competent Officer" means an officer appointed as such by the Authority to be the in-charge of a section of the National Waterway for the development, management and maintenance;

(d) "convoy" means a group of vessels, floating equipment or raft towed-or pushed by a mechanically propelled vessel;

(e) "drifting" means being driven by the current with the engine stopped; "ferry boat" means any vessel providing a transport service across or along a waterway;

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(g) "inland mechanically propelled vessel" means a mechanically propelled vessel which ordinarily plies on any inland water;

(h) "lock" means confined section of river or canal where level can be changed for raising and towering boats between adjacent sections by use of gates and sluices;

(i) "lock basin" means the approach to the lock narrowing towards the lock from upstream and downstream;

(j) "master" means any person not being a pilot, harbour master, berthing master, has for the time being the command or charge of a vessel;

(k) "mechanically propelled vessel" means every description of vessel propelled wholly or in part by electricity, stream or other mechanical power;

(l) "navigable channel" means the channel intended for passage of ships;

(m) "owner" means when used in relation to goods, includes any consignor consignee, shipper or agent for the safe custody thereof and when used in relation to any vessel, includes any part owner, chartered consignee, mortgage or agent in charge thereof;

(n) "port" means an inland port;

(o) "Schedule" means Schedule to this Chapter;

(p) "section" means a portion of the waterway controlled by one field headquarter;

(q) "small craft" means any vessel with a hull length less than 10 metres and less than 3 metres wide;

(r) "terminal" means the place where the cargo and passengers change from one mode to other mode of transportation.

Explanation.-Terminal facilities include berthing, cargo transfer, storage and ticketing and passenger rest, comfort rooms;

(s) "vessel" means every description of watercraft, including small craft vessel under oars or sail, floating equipment and non-displacement craft.

PART-II

WATERWAYS AND SAFETY MEASURES ON WATERWAYS

50. **Marking of Navigable Channel**.- A navigable channel may be marked to indicate safe limits of the channel by channel marks like bamboo marks or buoys. Details of channel marking are given in Schedule I. In case there is night navigation marks shall be provided with light or painted with luminous paint.

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51. Traffic Signals and Signs.- The traffic signals or signs may be erected on the banks of the river or on any fixtures on the river to ensure safety on the navigable channel. The signs boards shall be painted with bright luminous paint. Different signals and signs are given in Schedule -II.

52. Passage through Bridges.- When a vessel is passing under a bridge, the height of the mast or the height of the collapsed mast and that of the wheelhouse or super structure shall be less than that between waterway level and the height of the road bridge. The speed of such vessel shall be regulated with reference to prevailing weather conditions and the currents likely to be experienced.

53. Passage through locks.- (1) While navigating through the locks and lock basin, the master shall comply with any orders given to him by the lock master to ensure safety and orderly movement of ship and quick passage through the lock.

(2) The order of priority for passage through the lock shall be as follows, namely:-

(a) Vessels of the Authority, government vessels, vessels belonging to the military and police;

(b) Passenger craft,

(c) Fishing boats,

(d) Cargo vessel,

(e) Other craft.

(3) The master shall take the following precautions while navigating through the lock, namely:-

(a) Vessels approaching a lock basin shall reduce speed and navigate with caution. Overtaking is prohibited near lock basin unless instructed to do so by the lock master.

(b) Vessels shall not trail anchors, cables or chains in locks or lock basin,

(c) While the lock is being filled or emptied, vessels shall be moored and mooring shall be so handled as to prevent bumping against the walls or gates,

(d) Vessels shall provide adequate fenders to avoid damage to the lock structure,

(e) Vessel under sails shall lower their sails before entering the lock.

(4) The passage through locks shall be in the order of arrival of the vessels in The lock basin.

(5) Notwithstanding anything contained in sub-section (2), any vessel expressly granted priority of passage by the Authority shall have priority for locking or unlocking.

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54. **Reduction of speed in certain circumstances.** - (1) Every vessel shall regulate their speed to avoid creating excessive wash or suction likely to cause damage to stationary or other moving vessels or structures.

(2) In particular the vessel shall reduce speed in good time, but without loosing the steering way required for safety:

(a) out side port entrances,

(b) near vessels made fast to the bank or to a landing stage loading or discharging cargo,

(c) near vessels lying at normal stopping places.

55. **Drifting of a vessel on the National Waterway.** - Drifting of a vessel in the National Waterway unless authorized by the Competent Officer, is prohibited.

56. **Crossing of navigable channel by ferry vessels.**- While crossing the navigable channel, the ferry vessels shall keep at such distance from vessels or rafts moving along the navigable channel, so that the latter are not obliged to change their course or reduce speed:

Provided that ferry vessels, under special circumstances may be granted priority of passage across the navigable channel by the Competent Officer and such vessel shall exhibit a green all-round light by night and a green flag by day, and shall have right of way as the circumstances permit.

57. **Navigational and meteorotogical information**. The Competent Officer shall arrange for dissemination of information on storm, flash flood, channel depth and dangers in navigation by issuing river notices," publishing river charts and displaying appropriate cautionary signals as given in Schedule -III, all the river ports.

PART-III

SAFETY OF VESSELS

58. **Certification of Survey and Registration** .- Every certificate of registration and every certificate of survey issued in respect of a mechanically propelled vessel under the Merchant Shipping Act, 1958, the Coasting Vessels Act, 1938, the Canals and Public Ferries Act, 1890 (Madras Act No. 11 of 1890) and the Inland Vessels Act, 191 7 shall be valid and effective as a certificate of registration or certificate of survey as the case may be, for making voyage in the national waterways:

Provided that the certificate of survey shall be suitably endorsed by the Competent Officer having regard to the safely requirements as per the rules.

59. **Certificate of Competency**.- The Certificate of competency or certificate of service as master, serang, engineer and engine driver issued under the Merchant Shipping Act, 1958 and the Inland Vessels Act, 1917, shall be valid for making voyage in national waterways.

60. **Identification marks on vessels.** - (1) Every vessel except a small craft shall bear the following identification marks on its hull, namely:-

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(a) Name of vessel, (Name shall be inscribed on each bow and stern of the vessel),
(b) Registration No.,
(c) Place of registry and year of registration.

(2) The identification mark shall be inscribed with letters not less than 20 cm in height and 2 cm. wide and shall be painted in light colour on a dark background or in a dark colour on a light background.

(3) In addition to the identification marks, every vessel shall display on a fixed board, exhibited on the upper deck, the following information, namely:-
(a) gross registered tonnage,
(b) maximum permissible number of passengers,
(c) name of the owner,
(d) date of last survey.

(4) Every vessel shall have the load line marked at least for one meter amid-ship on both sides and draught scale marked in meters and decimeters at both ends of the vessel.

(5) Every small craft shall have its registration number and name of the owner inscribed on both sides of the vessel.

(6) Every craft shall have its registration number or the name of the owner, or both, exhibited on a wide board at a conspicuous part of the craft.

61. **Vessels To Ply With Certain Conditions For Movement On National Waterways.**
Vessels making voyage in the national waterways shall:-
(a) ensure that the length, breadth, height, draught and speed of the vessel, convoys, and side by side formations are suitable and in accordance with the limits as specified by the Competent Officer from time to time;
(b) ensure that no object is allowed to project beyond the sides of the vessel or raft that would constitute a danger to other vessels, rafts, floating establishments or installations on or adjacent to the waterway or channel except under the condition specified at (c);
(c) ensure strict compliance of the safety requirements for carriage of over dimensional cargo as specified by the Competent Officer in each case.

62. **Conditions relating to mooring or anchoring of vessels in port area.** - No vessel shall be moored or anchored within a port except in areas designated for such purposes by the Competent Officer.

63. **Stationary Vessels.**- All stationary vessels, rafts and floating equipments must be anchored or made fast securely enough to withstand the current in such a way that they can adjust to the changes in water level.

64. Pilotage - (1) The Competent Officer shall.-

(a) classify the river stretch where pilotage shall be compulsory and where the pilotage shall be optional;

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(b) arrange positioning of experienced pilots; and

(c) provide services of the pilot to the vessels in areas where pilotage is declared compulsory.

PART- IV

NAVIGATIONAL SAFETY AND THE RESPONSIBILITY OF THE MASTER AND THE OWNER

65. **Instructions to the Master** - (1) The master shall be responsible for ensuring that the vessel is river worthy. He shall follow the rules relating to the safety measures for navigation in particular and following in general, namely:-.

(a) take all precautions required to exercise vigilance and to avoid damage to the vessel, installations in the national waterway and avoid causing obstructions to shipping and navigation;

(b) to avoid imminent danger, take all steps required by the situation (according to the general practice of seamanship) even if this entails departing from these rules;

(c) be responsible for compliance with the rules or rules applicable to his vessel and his crew and to the vessels in tow, while his vessel is engaged in towing of other vessels;

(d) ensure possession of a valid certificates of registration and survey of the vessel and valid certificate or license by the crew, ships article or the crew list, ships log and engine log;

(e) ensure that at no time the vessel is over loaded or carried more than the number of passengers it is certified to carry;

(f) ensure that dangerous goods or explosive materials are carried on board as authorized by the Competent Authority and procedures and safety precautions as per the Explosives Rules, 1983 arc taken for carrying of such goods or material onboard;

(g) on sighting a vessel or raft which has suffered an accident endangering persons or he vessel or threatening to obstruct the channel, give immediate assistance to such vessels without endangering safety of his own vessel;

(h) in case of any marine casualty, give warning to the approaching vessels to enable of sinking or goes out of control;

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(i) ensure that life saving appliances as specified in Schedule IV are carried onboard, in good condition and in a position available for immediate use;

(j) ensure that no time the vessel discharge in the waterway except at places designated by the Competent Officer, raw sewage, oily substances, garbage etc.

(2) The master of a passenger vessel shall display the disposition and use of life saving appliances carried onboard and demonstrates the use of life jackets before commencement of journey.

(3) The master shall ensure that all the navigational aids, fire fighting and ftooding control appliances are on board in proper working condition and in a position available for immediate use and cause regular conduct of exercises to his crew for the efficient use of such appliances.

(4) The master shall make immediate report to the nearest competent officer on -
(i) sighting of any other vessel in distress,
(ii) grounding or sinking of the vessel,"
(iii) outbreak of fire or ftooding in his vessel;
(iv) damage caused to any waterway installations or permanent structures,
(v) observing uncharted obstruction or failure of navigational aid is noticed,
(vi) failing over board of any object which may become an obstruction or danger to navigation,
(vii) spillage of oil into National Waterway,
(viii) piracy or theft onboard.

(5) The master or persons in charge of a vessel shall give the competent officer or any person authorized by him all necessary facilities for verifying compliance with these 'rules.

66. **Instructions to the Owner -** (1) The owner of the vessel shall make sure that the vessel is river worthy in all respect and has competent crew on it.

(2) The owner shall -
(a) ensure that the vessel does not proceed on any voyage or be used for any service unless the vessel has a valid certificate of survey in force applicable for such voyage or service,
(b) ensure that only qualified personnel with a valid certificate of competency certificate of service or license are employed on board the vessel as master serang, engineer or driver and the crew,
(c) ensure that the crew provided is sufficiently huge and skilled to ensure the safety on those onboard and safe navigation,
(d) provide insurance for his vessel against third party risks,
(e) arrange displaying of the distinguishing mark (registration mark) in a conspicuous place,
(f) ensure that the certificate of registration granted in respect of any vessel shall be used only for the lawful navigation of that vessel,

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(g) report alterations carried out on his vessel which do not correspond with the particulars relating to the vessel or the description entered, in the certificate of registration to the registering authority,

(h) if it is an abandoned vessel, in the navigable channel, make arrangements for immediate marking of the vessel to avoid danger to other vessels,

(i) make arrangements for the removal of a vessel from the navigation channel as early as possible or as directed by the competent officer,

(j) forthwith give notice to the nearest competent officer, whenever-

(i) a vessel has been wrecked abandoned or materially damaged,

(ii) any casualty happening to or on board any vessel, including loss of life, material damage to any other vessel or structures, (iii) a vessel has spilled oil into National Waterway.

(3) If an owner fails to remove a vessel under clause (i) of sub-rule (2), the Competent Officer shall cause the removal of such vessel and recover the cost of such removal from the owner.

PART-V

SUSPENSION, CANCELLATION AND APPEAL

67. **Power to suspend and cancel endorsement on certificate of survey.**- (1) The Competent Officer reserves the right to suspend forthwith the endorsement on Certificate of Survey of the vessel for a period not exceeding sixty days in the case of contravention of any of the regulation mentioned herein before at the first instance.

(2) In the case of repeated contravention, the Competent Officer shall have the power to cancel the endorsement on Certificate of Survey of the vessel forthwith.

68. **Appeal.** - (1) Any person aggrieved by an order of the Competent Officer issued under rule 67, may within thirty days from the date on which he receives such order, appeal against it to the officer so designated.

(2) The officer so designated shall cause notice of every such Appeal to be given to the Competent Officer in such manner as may be prescribed and after giving an opportunity to the appellant to be heard, shall pass such order thereon as deems fit and his decision shall be final.

PART-VI

PENALTIES AND LEGAL PROCEEDINGS

69. **Penalty For Failure To Observe Navigable Channel.** - If the master of the vessel navigates beyond the safe limit of navigable channel mark as prescribed in rule 50, he shall be punishable with fine which may extend to four hundred rupees.

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70. **Penalty for Failure to Observe Traffic Signals and Sign.**- If the master of the vessel fails to observe any of the traffic sign or signal in contravention of rule 51, he shall be punishable with fine which may extend to two hundred and fifty rupees.

71. **Penalty for Failure to Observe Overhead Clearance.**- - If the master of the vessel fails to ascertain the overhead clearance of his vessel or fails to regulate the speed by passing through the bridge in contravention of rule 52, he shall be punishable with fine which may extend to five hundred rupees.

72. **Penalty for Non-Compliance with this Order from Lock Master.** - If the master of the vessel fails to comply any of the order given to him by the tock master to ensure the safety and orderly movement of the vessel and quick passage through the tocks in contravention of sub-rules (1) and (2) of rule 53, he shall be punishable with fine which may extend to five hundred rupees.

73. **Penalty for Failure To Take Precaution While Negotiating Through Lock.** – If the master fails to take any one of the precautions while passing through lock in contravention of sub-rule (3) of rule 53, he shall be punishable with fine which may extend to three hundred rupees.

74. **Penalty for Failure to Regulate Speed to Avoid Creation of Excessive Wash Or Suction.**- If the master of the vessel fails to regulate the speed of the vessel to avoid creation of excessive wash or suction likely to cause damage the stationary or other moving vessels or structures in contravention of rule 54, he shall be punishable with fine which may extend to two hundred rupees.

75. **Penalty for Causing the Vessel to Drift.** - If the master of the vessel, not being authorized by the Competent Officer, causes his vessel to drift in contravention of rule 55, he shall be punishable with fine which may extend to one hundred rupees.

76. **Penalty for Failure to Keep Safe Distance.** - If the master of a ferry vessel while crossing the navigable channel tails to keep such distance from vessels or rafts moving along the navigable channel, so that the later are forced to change their course or reduce speed in contravention of rule 56, he shall be punishable with fine which may extend to one hundred rupees.

77. **Penalty for Failure to Observe Navigational and Meteorological Information.** – If the master of the vessel fails to observe the river notices or river charts or cautionary signals issued by the Competent Officer in contravention of rule 57, he shall be punishable with fine which may extend to two hundred rupees.

78. **Penalty for Failure to obtain Endorsement on Certificate of Survey for voyage in National Waterways** If any vessel proceeds on a voyage on National Waterway without

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obtaining the endorsement an Certificate of Survey in contravention of rule 58, the owner and the master shall each be punishable with fine which may extend to five hundred rupees.

79. **Penalty for Failure to Keep Valid Certificate of Competency For Making Voyage On National Waterways**.- If the vessel proceeds on a voyage on National Waterway without the Certificate of Competency in contravention of rule 59, the master, serang, engineer and engine driver shall each be punishable with fine which may extend to five hundred rupees.

80. **Penalty for Failure to Bear Identification Marks On Vessel**.- If any vessel makes a voyage on National Waterway without bearing any of the identification mark in contravention of rule 60, the master and the owner shall each be punishable with fine which may extend to two hundred and fifty rupees at first instance and rupees four hundred in case of continued contravention.

81. **Penalty For Failure To Comply With Waterway Limits** - If the master of the vessel fails to ensure that the length, breadth, height and draught of his vessel and speed of the vessel and convoy in contravention of clause (a) of rule 61 he shall be punishable with fine which may extend to three hundred rupees.

82. **Penalty For Causing An Object To Project Beyond The Sides Of The Vessel** – If the master of a vessel causes an object to project beyond the sides of the vessel constituting a danger to other vessel or installation in contravention of clause (b) of rule 61, he shall be punishable with fine which may extend to four hundred rupees.

83. **Penalty For Non-Compliance With Safety Requirement For Over Dimensional Cargo**.- If the master of the vessel fails to comply with the safety requirements for carriage of over-dimensional cargo in contravention of clause (c) of rule 61,he shall be punishable with fine which may extend to three hundred rupees.

84. **Penalty For Anchoring Of The Vessel Outside the Designated Area In a Port**.- If the master of the vessel causes his vessel to be moored or anchored in area not designated for such purposes within a port in contravention of rule 62, he shall be punishable with fine which may extend to one hundred at first instance and rupee one hundred per day in case of continued contravention.

85. **Penalty For Improper Mooring.** - If the owner or master of a stationary vessel, raft and floating equipment fails to anchor or make fast the vessel securely enough to withstand the current and change in water level in contravention of rule 63, he shall be punishable with fine which may extend to five hundred rupees.

86. **Penalty For Failure To Observe The River Stretch For Compulsory Pilotage** - If the master of the vessel makes a voyage on national waterway without a pilot on a Ever

stretch where pilotage is compulsory, as classified by the Competent Officer, in contravention of rule 64, he shall be punishable with fine which may extend to five hundred rupees.

87. **Penalty For Failure To Observe Instruction To The Master**.- - If the master of the vessel fails to observe any of the instructions given to him in contravention of rule 65, he shall be punishable with fine which may extend to five hundred rupees for each contravention.

88. **Penalty For Failure To Observe Instructions To The Owner**. - If the owner of the vessel fails to observe any of the instructions given to him in contravention of rule 66. he shall be punishable with fine which may extend to five hundred rupees for each contravention.

89. **Application of the Provision of Inland Vessels Act, 1917**.- Notwithstanding anything mentioned herein before, the provisions of Chapter 7, of the Inland Vessels Act, 191 7(1 of 191 7) shall also mutatis- mutandis apply to all the mechanically propelled vessels making voyage on national waterway as they apply to mechanically propelled vessels on any Inland Waterways

90. **Provision for punishment of offences not otherwise provided for** - If any person contravening any of these rules for which no specific penalty has been provided for, he shall be punishable with fine which may extend to two hundred and fifty rupees.

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SCHEDULE - I
(See rule 50)

MARKING OF THE WATERWAY

A. Buoyage and marking of the waterway.

(i) Direction of buoyage

The direction of buoyage shall be defined as follows :-

(a) The general direction taken by the mariner when approaching harbour, river or estuary or waterway from seaward.

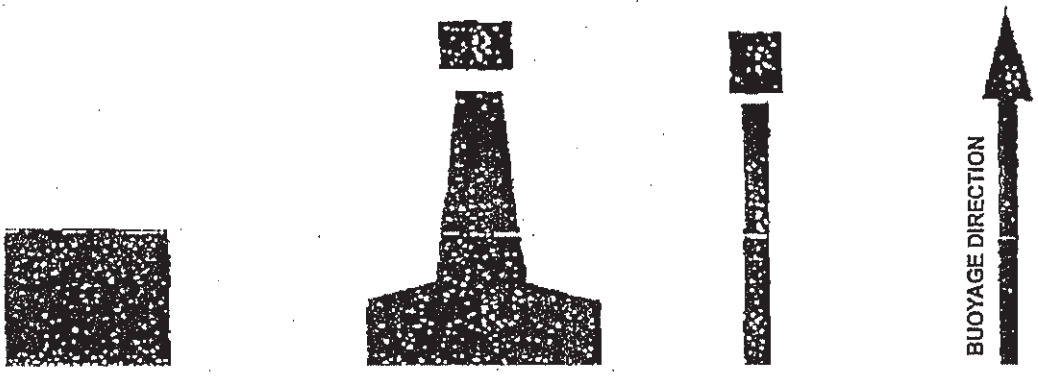
(b) In case of non-tidal rivers the direction against the flow of the river.

(c) The direction in which the kilometer chainage increases in case of estuary.

(ii) Port hand Marks

These marks indicate the left side of the channel..

By day : Red Buoys, preferably cylindrical (CAN), or red spars. Red Cylindrical top mart is compulsory on the spars and on the buoys if they are not cylindrical.



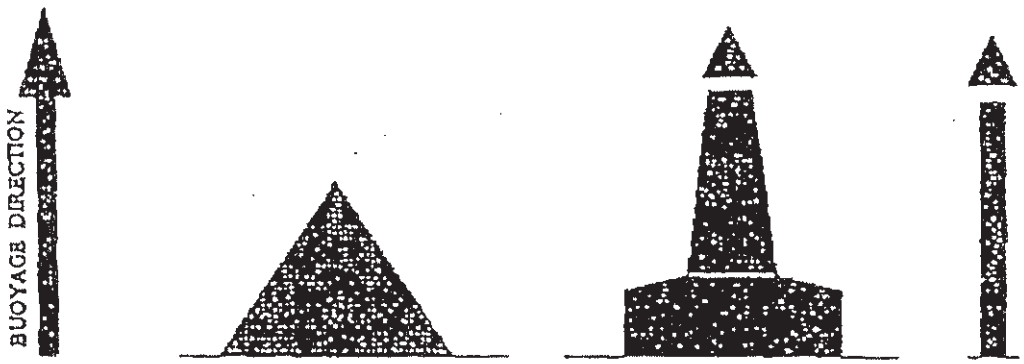
By Night : Rhythmic red lights, of any type

(iii) Starboard hand Marks

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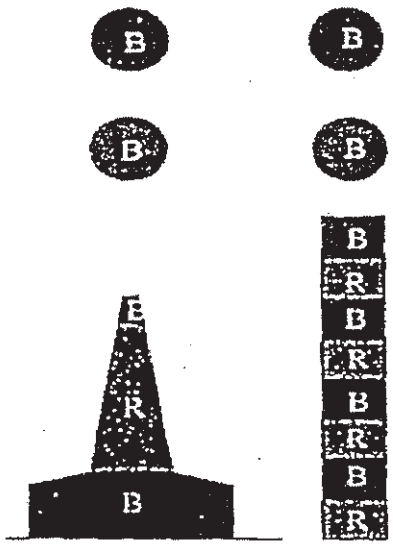
These marks indicate the right side of the channel.

By day :-
Green buoys, preferably conical, or green spars. A green conical top mark point upward is compulsory on the spars and on the buoys if they are not conical.



By **night**:- Rhythmic green lights, of any type.
R = RED
G = GREEN

(iv) Isolated danger Marks
An isolated danger mark is a mark created on. or moored on, or above an isolated danger which has navigable water, all round it.
Description of an isolated danger mark



a) Top mark: Two black spheres, one above the other .

b) Cotour : Black with one or more broad horizontal red bands.

c) Shape : Optical, but not confecting with lateral marks; pillar or spar preferred.

By Night : Rhythmic white light - group flashing.

R = RED, B = BLACK

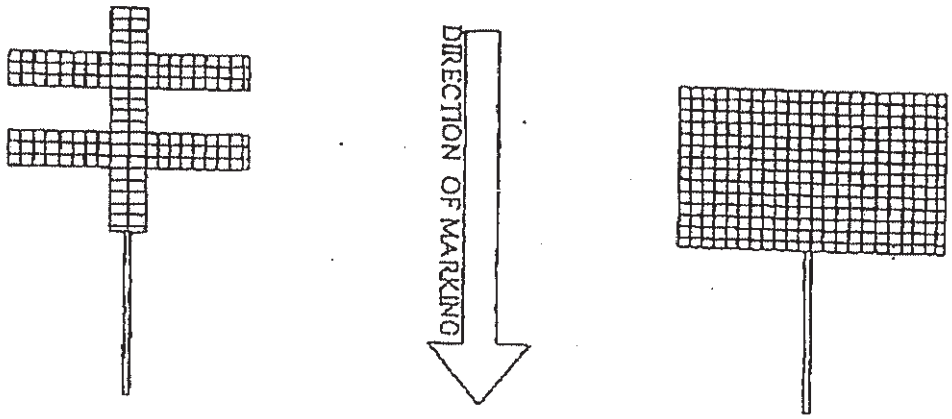
B. <u>Conventional Marks</u>

(i) Direction of marking
Conventional marks are made of bamboo strips and used only in rivers. The

direction of marking will be downstream the river.

(ii) Bamboo mat marks at the beginning and end of the channel

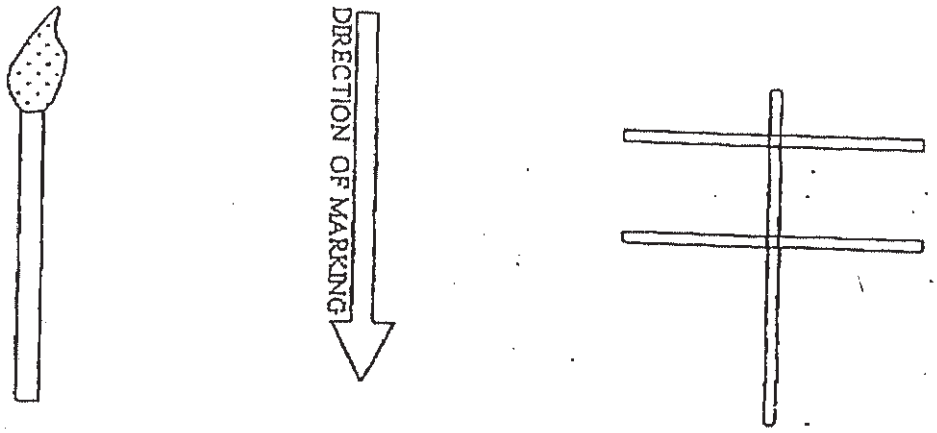
Right Hand Marks **Left Hand Marks**



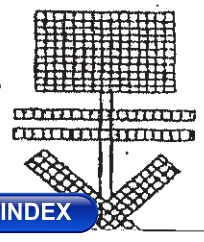
(iii) Bamboo marks in between and marks

Right Hand Marks
(Ball mark)

Left Hand Marks
(Bamboo Strips; mark)



(iv) Under water snag marks (painted with lime)



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a) To indicate snag which can be crossed from either side.

b) Snag to be kept on left.

c) Snag to be kept on right

SCHEDULE II

(See rule 51)

C. Signs and Signals

1. Day and Night marking

Where the prescribed mark consist of :-

(a) Light only, the lights may be used by day and by night

(b) Boards only, the boards may be used as night marks if illuminated. Boards shall be rectangular in shape of 1.5 metre x 1 metre size minimum;

(c) Boards and lights, By day, either boards or lights may be used; by night either lights or illuminated boards may be used.

2. Lighting

Lights may be provided at night for lighting of the tower parts of a bridge, of the piers of a bridge, of the approaches to a tock, of a section of small canal etc.

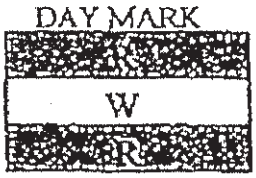
3. Intensity of Lights

The lights recommended in this rules shall be visible for a distance of at least 2 kms., and shall be distinct from the surrounding lights.

4. Fixed lights

(i) Single red light





"No passage"
Either to some of the channels or arms of the waterway, or to the whole of the waterway.

Two red light placed one above the other



Complete and prolonged stoppage of navigation (blockage of waterway bridges or locks out of service)

(iii) Two or more red Lights set apart



"No passage" (between) the lights).

(iv) Single green light



"Go ahead" (the green light is always placed at side of the navigable channel). The use of this signal shall however, be restricted to cases where, a single green light is sufficient clearly to indicate the clear passage. In other cases, the use of two green lights set apart, and indicting the passage is recommended.

(v) Two green lights set apart

"Go ahead between the lights.

(vi) Single yellow light, along or between green lights

"Go ahead, but look out for traffic coming the other way" Vessels may steer towards the light, which is is placed above the navigable channel.

Y Y

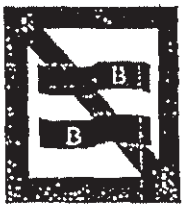
Or

Proceed with caution.

(vii) A red light above a White light

"Do not cause wash"





(viii)

Do not exceed the speed. Indicated (in km/hour)



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(ix) Clearance above water level limit

(x) Width of fairway or channel limit.

W = WHITE
R = RED
G = GREEN
Y = YELLOW
B = BLACK

SCHEDULE - III
(See rule 57)

STORM WARNING SIGNALS

	Day	Night
1. WARNING: A storm may affect you shortly		
		

2. DANGER: A storm will soon strike you

3. DANGER: The port is threatened by a Bore - tide or flash flood;. sudden rise in water level and strong current expected.

4. GREAT DANGER; A violent storm will soon strike you.

SCHEDULE - IV

(See clause (i), sub-rule (1) of rule 65)

DETAILS OF LIFE SAVING APPLIANCES TO BE CARRIED ON BOARD INLAND VESSELS

1. **Classification of vessels**

Inland vessels shall be classified as follows namely:-

Class I	Passenger vessels
Class II	Ferry launches and boats
Class III	Cargo vessels and vessels other than those falling underclass-I. II, IV, V & V
Class IV	Non propelled vessels (barges)
Class V	Pleasure crafts

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2. Vessels of Class - I

2.1 Every vessel of Class. I shall be provided with:

(a) Sufficient number of boat(s) as per requirement of sub rule 2.2 and life rafts to accommodate total number of passengers and crew on board.

(b) (i) One life jacket for 50% of the passengers and crew on board only in WCC and 100% in respect of NW-I and II.

(ii) Life jacket for child, for 10% of total number of persons certified to carry. For the purpose of this section, child means persons weighing below 30 kg.

(c) At least four life buoys for vessels up to 25 metre length, six life buoys for vessel 25-45 metre length and 8 life buys more than 45 metre length. At least two of the lifebuoys supplied shall be equipped with self igniting light if the vessel navigates at night.

2.2 At least one boat minimum carrying capacity of ten persons for every vessel up to 25 metre length except for small crafts, and at least two boats for vessel of more than 25 metre length shall be provided. The boat shall be provided with necessary davit for launching. Boats are to be stowed equally on either side of the vessel if more than one boat provided.

3. Vessels of Class-II

3.1. Every vessel of Class II shall be provided with:

(a) Sufficient number of boat (s) as per the requirement of sub rule 3.2 and life rafts to accommodate the total number of passengers and crew on board.

(b) (i) Life jackets for 50% of the passengers and crew on board only in WCC and 100% in respect of NW - I & II.

(ii) Life jackets for child, for 10% of total number of persons certified to carry. For the purpose of this section, child means person weighing below 30 kg.

(c) At least eight life buoys of which at least two shall be equipped with self igniting light if the vessel navigates at night.

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3.2 At least one boat with minimum carrying capacity of 10 persons for every vessel between 25 metre to 45 metre length and two boats for every vessel of more than 45 metre length shall be provided. Boat shall be provided with required davit for launching. If more than one boat supplied they may be stowed on either side of the vessel. For vessels used for single continuous' voyages not exceeding 5 Kms. the competent officer may permit use of buoyant apparatus or life buoys in lieu of boats.

4. **Vessels of Class - III**

Every vessel of Class III shall be provided with:

(a) At least one life raft to accommodate all crew for vessel over 10 metre.

(b) One life jacket for each crew or person on board.

(c) At least two life buoys for vessel up to 25 metre length and four life buoys for vessel of above 25 metre length of which one shall-be equipped with self igniting light if the vessel navigates at night.

5. **Vessels of Class - IV**

Every manned vessel of Class IV shall be provided with:

(a) At least two life buoys one of which shall be equipped with a self igniting light if the vessel navigates at night,

(b) One life jacket for every crew on board.

6. **Vessels of Class -V**

Every vessel of Class V up to 10 metre in length shall carry life jacket for each person. Vessel above 10 metre shall carry sufficient life raft / life buoys for all persons on board. However, all vessels of Class V shall carry at least 2 Life Buoys of which one to be of self igniting type if the vessel navigates at night.

7. **Technical requirements.-**

Every life saving appliances provided as per the provision of these rules shall meet the requirement of Appendix 'A'.

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8. **Stowage.-**

Every life saving appliances provided as per the provision of these rules shall be stowed according to the requirement of Appendix 'A' as far as applicable.

9. **Display of usage.-**

On every vessel of Class I and II, the list of life saving appliances and instruction of their use shall be displayed at conspicuous places.

10. **Exemption.**

Exemption in vessels or class of vessels provided that she complies with the requirement of the Inland Vessels Act, 1917, the keel of which is at corresponding stage of construction before the entry into force of these rules may be exempted from compliance therewith of the provision for carriage of life boats until two years after the date of entry into force of these rules provided that adequate life raft in lieu are provided on board.

APPENDIX 'A'

SPECIFICATION OF LIVE SAVING APPLIANCES

1. **Boats.**

(a) All boats shall be well designed and of such shape and proportions that they sufficient stability and freeboard when carrying their full load of persons and equipment. Its stability shall be deemed to be adequate if, with half the maximum permissible number of persons standing on one side of the boat, there remains a freeboard of not less than 100 mm.

(b) All boats shall be capable of being lowered into the water with their full load of persons and equipment. They shall be of such strength that they will not suffer permanent deformation if subjected to an overload of 25 percent.

2. **Life rafts.**

(a) Every life raft shall be fitted with securely beckets,

(b) Every life raft shall be so constructed as to comprise units containing a volume of air of at least 0.096 M^3.

(or equivalent buoyancy devices in the case of rigid life rafts) an a deck are of at least 0.372 sq. m., for every person it is permitted to carry,

(c) The life raft shall be so constructed that if it is dropped into the water from the highest deck neither the life raft nor its equipment will be damaged ,

(d) Every rigid life raft shall be constructed as to retain its shape in all weather conditions, on deck and in the water.

3. Life Jackets

A life jacket shall satisfy the following requirements, namely:-

(a) It shall be properly designed and made of suitable material,

(b) It shall be capable of supporting a mass of 7.5 kg. in fresh water for 24 hours,

(c) It shall be capable of keeping the head of an exhausted or unconscious person above water,

(d) It shall be so designed as to eliminate so far as possible all risk of its being put on incorrectly, however, it shall be capable of being worn inside out,

(e) It shall be capable of turning the wearer's body, on entering the water to a safe floating position slightly inclined backwards from the vertical,

(f) It shall withstand the effects of oil and oil products and of temperatures up to 50°c,

(g) It shall be reflecting orange in colour,

(h) It shall be easy and quick to put on, and shall fasten securely to the body,

(i) It shall be fitted with a whistle held in a pocket,

(j) It shall bear the following particulars:-

- Name of manufacturer,
- Type,
- Year of manufacture.

4. Life buoys.-

(a) Every life buoy shall,-

(i) Be capable of supporting a mass of 14.5 kg. in fresh water for 24 hours,

(ii) Be made of suitable materials and withstand the effects of oil and oil products and of temperatures up to 5COC,

(iii) Be reflecting orange in colour,

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(iv) Have a mass of not less than 6.5 kg,

(v) Have an internal diameter of 0.45 metre + 10 percent,

(vi) Be encircled with rope which can be grasped;

(b) At least one life buoy on each side of the vessel shall be fitted with self- igniting light and buoyant life line which is not less than 25 meter long and which is firmly secured by a hook.

APPENDIX 'B'

STOWAGE AND HANDLING OF LIFE SAVING APPLIANCES

All buoyant apparatus and life buoys shall be so placed as to be capable of floating off the vessel freely.

Suitable arrangements shall be made for access to the boats and rafts.

Effective means shall be provided for lighting the life saving appliances and their launching devices.

The launching devices provided for boats shall be so designed and arranged that the boats can be lowered reliably, quickly and without danger to persons.

The launching devices davits, fails, locks and other gear shall be of such strength that the boats can be safely lowered on either side in unfavorable conditions of list or trim.-

Life saving appliances shall be so stowed that they are easily accessible and can be launched as quickly as possible.

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CHAPTER - XII

ASSIGNMENT OF LOAD LINE

91. General.- (1) Notwithstanding anything contained in any rules or regulations made by the Central Government in this regard, the requirements for assignment of load line shall be as specified in Annexure I.

(2) The vessels and barges to which these rules apply shall not proceed on voyage unless surveyed, marked and certified in accordance with the provisions of these rules.

(3) Nothing in these rules shall prevent the Administration from assigning a greater freeboard than the minimum freeboard determined in accordance with these rules.

92. Load Line Mark.- A load line mark as detailed in rule 51 is to be marked at the mid-vessels (P&S) indicating the maximum permissible draught while operating in the inland waters.

93. Details of marking.- The marks shall be painted in white or yellow on a dark ground or in black on a light ground. They shall also be permanently marked on the sides of the vessel to the satisfaction of the Administration. The marks shall be plainly visible and, if necessary, special arrangements shall be made for this purpose. The load line shall be marked at or near Midvessels by a steel plate or a weld bead of 450mm in length and 25mm in width .

CHAPTER - XIII

CALCULATION OF BASIC FREEBOARD

(A) For All Decked Passenger Vessels Below 24 M

94.- Calculation Of Basic Freeboard,- (1) The formula for the calculation of basic freeboard shall be as under,-

The basic freeboard F.-

$F = 50 + ((150 \times L))$ where L = length of vessel in m

F = freeboard in mm.

(2) Where the actual depth to the upper edge of the deck line is greater or less than D, The difference between the depths shall be added to or deducted from the freeboard.

95. Correction to the freeboard,- (1) The Administration shall apply the appropriate provisions of the Load Line Convention to apply corrections to the basic freeboard.

(2) In calculating the correction to the basic freeboard the Administration shall take into account the general provisions and conditions of assignment, specified in this Chapter to ensure the safety of life at sea and in particular:-

(a) the position of opening,

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(b) the height of the sills to the doorways,
(c) the height of hatchways,
(d) the height of ventilators and air pipes, and
(e) the weather tightness of the closing appliances including doorways, hatchways, ventilators, machinery space openings and air pipes.

(3) The freeboard in salt water in the summer zone, as corrected in accordance with sub-rules (1) and (2), but without the correction for deck line, as provided in rule 94, shall not be less than 50 mm. for vessels having hatchways with covers in position 1 the freeboard shall be not less than 150 MM.

(4) The minimum freeboard in the tropical zone shall be the freeboard obtained by a deduction from the summer freeboard of one forty-eight of the summer draught measured from the top of the keel to the centre of the ring of the load line mark and shall not be less than 50 mm. For vessels having hatchways with covers in position 1 the freeboard shall be not less than 150 mm.

(5) The minimum freeboard in fresh water of unit density shall be obtained by deducting from the minimum freeboard in salt water the displacement of the vessel in salt water in tones at the summer load waterline divided by forty times the tons per centimeter immersion in salt water at the summer load dateline.

(6) Where the displacement of the summer load water line cannot be certified, the deduction shall be one forty-eight of summer draught, measured from the top of the keel to the centre of the ring of the load line mark.

(B) FOR ALL DECKED PASSENGER VESSELS ABOVE 24 M IN LENGTH AND ALL OTHER VESSELS

96. **Calculation Of Basic Freeboard**,- In calculating the correction to the basic freeboard to ensure the safety of life at sea for all decked passenger vessels above 24 m in length the Administration shall ensure that the requirements specified in Annexure I are complied with.

CHAPTER - XIV

PREVENTION OF MARINE POLLUTION

97. **Application .**- This Chapter applies to all vessels operating in the inland waterways. The provisions of this Chapter establish the basic requirements with a view to reduce water pollution by oil, oily mixtures and garbage.

98. **Definitions.**- In this Chapter unless the context otherwise requires, -

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(a) "oil" means petroleum in any form, including crude oil, fuel oil, sludge, oil refuge and refined products;

(b) "oily mixture" means a mixture with any oil content;

(c) "chemicals" means Noxious Liquid Substances designated in MARPOL Annexure - II;

(d) "garbage" means all kinds of rubbish, domestic waste and waste generated during the normal operation of the vessel which may require continuous or periodic disposal;

(e) "reception facilities" means shore and floating installations for the deposit of all kinds of pollutants from the vessels with a view to their treatment, utilization, etc.

99. Prevention of pollution by Oily mixtures & Chemicals.

(1) No Oil, Oily Mixtures or Chemicals shall be discharged from the machinery spaces or cargo tanks into the water except under explicit permission' from the Administration.

(2) Every vessel to which these Rules apply is to provide adequate means of collecting and storing the oily mixtures onboard the vessel.

(3) In order to transfer the oily mixtures, the vessel should have a fixed discharge pipes on both sides with an international shore connection.

(4) In case, an onboard separator is provided, then means are to be provided for storage of the residues, and for transfer to shore reception facilities.

(5) If storage tanks are used, then the tanks are to be provided with a manhole and an air pipe.

(6) An approved record book shall be maintained for recording all activities pertaining to handling, storage and transfer of above oil and chemicals.

100. Prevention Of Pollution By Garbage.

(1) The prevention of pollution by garbage means are to be provided for collection of garbage onboard the vessels. This can either be a removable type or inbuilt in the hull.

(2) The design of garbage collection system is to be such that the garbage can be removed efficiently from the vessel with out the danger of it being scattered.

(3) The capacity of the garbage receptacles is to be adequate to store the garbage generated during the voyage of the vessel.

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ANNEXURE – I

(See rule 17)

Chapter 1

General, Definitions, Documentation

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1	General
2	Definitions
3	Documentation

Section 1

General

1.1 Scope

1.1.1 The Rules in this part apply to all-welded, single hull steel vessels of normal form, proportions and speed for operation in inland waterways.

1.1.2 For additional class notations relating various vessel types, requirements as per Pt.5 are to be complied with.

1.1.3 Vessels of unconventional forms and proportions or intended for carriage of cargoes not covered by the Rules or to be engaged in special service will receive individual consideration based on the general principles of the Rules. In these cases, however, additional calculations and/or model testing may be required to be carried out and submitted for approval.

1.1.4 Proposals for use of alternative materials e.g. aluminium, wood, etc. for some parts of the vessel shall receive special consideration. -

1.2 Equivalence

1.2.1 Alternative arrangements, scantlings and equipment may be accepted provided they can be shown to be equivalent to the overall safety and strong in standard of the Rules Direct calculations for the derivation of the scantlings as an alternative to those derived by the Rule formulae, may be accepted on special consideration. The calculation procedure and the assumptions made are to be submitted for approval.

1.3 National regulations

1.3.1 While the Rules cover requirements for the classification of vessels, the attention of all concerned is drawn to requirements of various local or national Regulations, Codes and Recommendations which the vessel may also have to comply with,

1.4 Load line and stability

1.4.1 All vessels will be assigned class only after it has been demonstrated that their intact/damage stability and loadline requirements (where applicable) are in compliance with the standards laid down by the local or National statutory authority.

1.5 Assumptions

1.5.1 It is assumed that significant dynamic excitation of major orders from propeller is and machinery do not fall close to any natural frequency of the hull.

1.5.2 It is assumed that the vessels will be competency handled and loaded as per The approved loading manuals.

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Section 2

Definitions

2.1 Principal particulars

2.1.1 The forward perpendicular, F.P., is the perpendicular drawn at the intersection of the maximum load water line with the fore side of the stern.

In vessels with unusual bow arrangement the position of the F.P, will be specially considered.

2.1.2 The after perpendicular, A.P., is the perpendicular drawn at the intersection of the maximum load waterline with the after side of the rudder post or the centerline of the rudder stock if there is no rudder post,

In vessels with unusual stern arrangement the position of the A.P. will be specially considered.

2.1.3 Rule length, L, is the distance, [m], between the forward and after perpendiculars. However L is to be not less than 96 per cent, and need not be greater than 97 per cent of the extreme length on the maximum load waterline.

In vessels with unusual bow and/or stern arrangement the Rule length, L, will be specially considered.

2.1.4 "Amidvessel is at 0.5L all of the F.P.

2.1.5 Breadth, B, is the greatest moulded breadth [m].

2.1.6 Depth, D, is The moulded depth [m]. measured, amid vessels from top of the keel to the moulded deck line of the uppermost continuous deck at side, When a rounded gunwale is arranged the depth is to be measured to the continuation of the moulded deck line.

2.1.7 Draught, T, is the moulded draught amidvessels corresponding to the maximum load waterline, [m].

2.1.8 The block co-efficient. C_b is The moulded stock co-efficient calculated as follows :-

$$C_b = \frac{\text{moulded displacement } [m^3] \text{ at draught T}}{LBT}$$

2.1.9 Speed V is the maximum service speed in knots on draught T.

2.2 Structural terms

2.2.1 The general terms used in the Rules for various structural parts of the vessels are defined as under:

- Strength Deck : In general the uppermost continuous deck. Where a superstructure deck has within 0.4L amidvessels, a continuous length equal to or greater than (1.5B + 3H), it is to be regarded as the strength deck instead of the covered part of the uppermost continuous deck. (H is the height of the superstructure, (m]).

- Superstructure : A decked structure on freeboard deck extending from side to side of the vessel or with the side plating not inboard of shell plating by more than 4 percent of the breadth B.

- Deckhouse : A decked structure above The freeboard deck with the side plating being-inboard of The shell plating by more than 4 ' per cent of the breadth B.

- Bottom Structure ; Shell plating with . stiffeners and girders below the upper turn of bilge and all other elements below and including The inner bottom plating in case of the double bottom. Stopping hopper tank top is to be regarded as a bulkhead.

- Side Structure : Shell plating with stiffeners and girders between the upper turn of bilge and the uppermost continuous deck at side. A rounded gunwale is included in the side structure'.

- Deck Structure: Deck plating with stiffeners, girders, and supporting pillars.

- Girder : A collective term for the primary supporting members, other terms include :

 - Transverses - transverse, girders under the deck.
 - Web frames - side vertical girders.
 - Hatch end beams - transverse deck girders at the ends of The hatch.
 - Stringers- horizontal girders.

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- Cross-ties - girders connecting two vertical girders in a deep tank.
- Floor - bottom Iransverse girders.
- Stiffener : A collective term for secondary supporting members; other terms being :
- Frames, Bottom, inner bottom, side or deck longitudinal.
- Reverse frame - transverse stiffener on the inner bottom.
- Horizontal or vertical bulkhead stiffeners.
- Other terms are defined in the appropriate Chapters.

2.3 Material factor

2.3.1 Material factor, k. a factor depending on material strength is defined in Ch.2.

Section 3

Documentation

3.1 General

3.1.1 Documentation is to be submitted as per the following paragraphs. In case of certain vessel types additional documentation may be required as per Pt.5.

3.1.2 The documents should be submitted in Triplicate, one copy of which shall be' returned.

3.2 Plans for information

3.2.1 The following supporting plans and calculations are to be submitted for information:
- General arrangement.
- Tank plan.
- Capacity plan.
- Lines plan and Hydrostatic curves or tables.
- Docking plan.

3..3. Additional information

3.3.1 The following additional information is to be submitted as necessary for strength calculations'

- Maximum values of still water bending moments and shear forces.
- Lightvessel weight and is longitudinal distribution.
- Bonjeans data.
- Stowage factor and angle of repose of bulk cargoes to be carried.
- Masses and unbalanced moments of heavy machinery components e.g. engines, cranes, winches etc.

3.4 Plans for approval

3.4.1 Plans as relevant are to be submitted for approval as indicated in Table 3.4.1. These should as far as practicable be complete in all necessary details.

3.5 Plans to be kept on board

3.5.1 A copy of the final approved loading manual and suitable scanning plans including-details of corrosion control system; if any, are to be placed on board the vessel.

3.5.2 To facilitate the ordering of materials for repairs, plans showing the disposition and extent of high tensile steel and steel of grades other than Grade A, along with the information relating to their physical and technical properties, recommended working treatment and welding procedures etc. are to be placed on board.

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Table 3.4.1. : Plans for approval	
Plan	**Including Information On**
Loading manual	Details of loading in all contemplated loading conditions and resulting SWBM, SF & Torsional Moments ™
Midvessel section Other transverse sections Longitudinal sections & decks Shell expansion & framing plan	Main particulars (L,B,D, T, C_b, V) Equipment specification Complete class notation applied for Spacing of stiffeners Deck loads, if other than those specified in the Rules Openings on the deck Openings on the shell.
Double bottom	Indication of access Height and location of overflows Loading on inner bottom
Watertight subdivision bulkheads & watertight tunnels.	Opening and their closing appliances
Aft-end structure sternframe or stern post Propeller shaft brackets Aft peak tank	Propeller outline Propeller thrust Structural details in way of rudder and propeller bearings Height and location of overflow.
Engine room structure Engine and thrust block seating	type, power and r.p.m. of propulsion machinery weight of machinery, boilers, etc.
Fore-end construction Fore peak tank	Opening on non-watertight bulkheads and diaphragm plates height and location of overflows.
Oil tight/water tight and partition Bulkheads in cargo tanks, ballast tanks and deep tanks	Intended tank contents & their densities Height and location of overflow / air pipes Tanks intended to be partially filled Corrosion protection; if any
Superstructures, deckhouses and machinery casings	Height of sills from deck and closing appliances for companion ways
Hatchways Hatch covers	Position and type loads if different from those specified in the rules Sealing and securing arrangement, spacing of bolts or wedges.
Rudder, stock and tiller Steering gear arrangement	Speed of the vessel (ahead & astern) Material of bearings, coupling bolts, stock and the locking device Rudder carrier.
Masts & derrick posts Support structure for masts, derrick posts & cranes	Derrick length and loading Dimensions and positions of stays and shrouds quality of material.
Testing plan of tanks & bulkheads	
Welding details	
Notes : (1) See Chapter 5, Section 6. (2) One drawing may contain more than one of the items from each group.	

CHAPTER – 2
Materials of Construction

Contents

Section	
1	General
2	Corrosion Protection
3	Deck Covering

Section 1

General

1.1 Scope

1.1.1 The Rules relate, in general, to the construction of steel vessels. Consideration will however be given to the use of other materials also.

1.1.2 The materials used in the construction of the vessel are to be manufactured and tested in accordance with the requirements of Pt.2. 'Materials' of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules). Materials for which provision is not made may be accepted, provided that they comply with an approved specification and such tests as may be considered necessary.

1.2 Steel

1.2.1 Ordinary hull structural steel is a hull structural steel with a minimum yield stress of 235 [N/mm^2] and a tensile strength generally in the range of 400-490 [N/rW],

For ordinary hull structural steel, the material factor's' is to be taken as 1.0.

1.2.2 Steels having a yield stress of 265 [N/mm^2) and higher, are regarded as higher tensile steels. where higher tensile steel is used, the hull girder section modulus and the local scantlings may be reduced in accordance with the relevant requirement of the Rules. For this purpose, a material factor 'k' is to be taken as follows:

k = 0.78 for steel with a minimum yield stress of 315 [N/mm^2]

k = 0.72 for steel with minimum yield stress of 355 [N/mm^2]

1.2.3 Where steel castings or forgings are used for stern frames, rudder frames, rudder stocks, propeller shaft brackets and other major structural items, they are to comply with Pt.2 'Materials' of Main Rules as appropriate.

1.3 Grades of steel

1.3.1 The vessels covered by these Rules are generally to be constructed of Grade "A" steel. However, for materials of over 20 [mm] in thickness used in highly stressed areas, grades of steel with higher levels of notch toughness (Grades 'B', D' or 'E') may be required dependent on the stress pattern associated with its locations.

1.4 Aluminum

1,4.1 Where seawater resisting aluminum alloys manufactured and lasted in accordance with the requirements of Pt.2 of the main rules are used for superstructures, deckhouses, hatch covers or other structural components, scantlings equivalent to steel are to be derived as follows."

plating thickness, $t_a = t_s \sqrt{k_a}$

section modulus of stiffener, $Z_a = Z_s - k_a$

where.

T_a t_s = plating thickness of aluminum and mild steel respectively,
Z_a Z_s = section modulus of aluminum and mild steel stiffeners respectively.

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$$k_a = \frac{235}{\sigma_a}$$

σ_a = 0.2% proof stress or 70% of the ultimate strength of the aluminum material, whichever is lesser [N/mm^2].

1.4.2 The smaller modulus of elasticity of aluminum is to be taken into account, when determining the buckling strength of structural elements subjected to compression and the deflections, where relevant.

Section 2

Corrosion Protection

2.1 General

2.1.1 All steelwork, except inside tanks intended for the carriage of oil or bitumen, is to be protected against corrosion by application of suitable coating.

For protection required in salt water ballast spaces. See 2.5.

For protection required in holds of dry bulk cargo carriers, see Pt.5. Ch.1.

For the protection required in tanks carrying chemicals or other special cargoes, see Pt. 5, Ch.3.

2.1.2 Where bimetallic connections are made, measures are to be incorporated to preclude galvanic corrosion.

2.2 Surface preparation, prefabrication primers, and paints or coatings

2.2.1 Steelwork is to be cleared of mill scale and suitably cleaned before the application of surface paints and coatings. It is recommended that blast cleaning or other equally effective means be employed for this purpose.

2.2.2 Where a primer is used to coat steel after surface preparation and prior to fabrication, The composition of The coating is to be such that it will have no significant deleterious effect on subsequent welding work, and that it is compatible with the paints or other coatings subsequently applied. Unless the primer used is type approved by IRS for this purpose, tests as detailed in Pt.3, Ch.2, Sec.3 of the Main Rules are to be made to determine the influence of the primer coating on the characteristics of the weld.

Paints or other coatings are to be suitable for the intended purpose in the locations where they are to be used. Unless previously agreed, at least two coats are to be applied.

2.2.4 The paint or coating is to be compatible with any previously applied primer. See 2.2.2.

2.2.5 paints, varnishes and similar preparations having a nitrocellulose or other highly flammable base are not to be used in accommodation or machinery spaces.

2.2.6 In vessels intended for the carriage of oil cargoes having a flash point below 60°C (closed cup test), paint containing aluminum should not in general be used in cargo tanks, adjacent ballast tanks, cofferdams, pump rooms as well as on deck above the mentioned spaces, not in any other areas where cargo vapours may accumulate, unless it has been shown by appropriate tests that the paint to be used does not increase the incentive sparking hazard.

2.3 Internal cathodic protection

2.3.1 Impressed current cathodes protection systems are not permitted in any tank.

When a cathodic protection system is to be fitted in tanks for the carriage of liquid anodes with flash point not exceeding 60°C, a plan showing details of the locations and attachment of anodes is to be submitted. The arrangements will be considered for safely against fire and explosion aspects only.

2.3.2 Particular attention is to be given to the locations of anodes in relation to the structural arrangements and openings of the tank.

2.3.3 Anodes are to be of approved design and sufficient liquid to avoid resonance in the anode support, Wieldable steel copies are to be fitted, and these are to be so designed as to retain the anode even when the anode is wasted.

Anodes are to be attached to the structure in such a way that they remain secure both initially and during service. The following methods of attachment would be acceptable ;

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a) Steel core connected to the structure by continuous welding of adequate section.
b) Steel core bolted to separate supports, provided that a minimum of two bolts with lock nuts are used at each support. The separate supports are to be connected to the structure by continuous welding of adequate section.
c) Approved means of mechanical clamping.

2.3.5 Anodes are to be attached to stiffeners, or may be aligned in way of stiffeners on plane bulkhead plating, but they are not to be attached to the shell. The two ends are not to be attached to separate members which are capable of relative movement.

2.3.6 Where cores or supports are welded to the main structure, they are to be kept clear of the toes of brackets and similar steel raisers. Where they are welded to asymmetrical stiffeners, they are to be connected to the web with the welding kept at least 25 [mm] away from the edge' of the web. In the case of stiffeners or girders with symmetrical face plates, the connection may be made to the web or to the centerline of the face plate but well clear of the free edges". However, it is recommended that anodes are not fitted to face plates of high tensile steel longitudinal.

2.4 Aluminum and magnesium anodes

2.4.1 Aluminum and aluminum alloy anodes are permitted in tanks used for the carriage of oil, but only at locations where the potential energy does not exceed 275 [J] (i.e. 28 [kgf.m]. The weight of the anode is to be taken as the weight at the time of fitting, including any inserts and fitting devices.

2.4.2 The height of the anode is, in general, to be measured from the bottom of the tank to the centre of the anode. Where the anode is located on or closely above a horizontal surface (such as a bulkhead girder) not less than 1 [m] wide, provided with an upstanding flange or face plate projecting not less than 75 [mm] above the horizontal surface, the height of the anode may be measured above that surface.

2.4.3 Aluminium anodes are not to be located under tank hatches or tank cleaning openings unless protected by adjacent structure.

2.4.4 Magnesium or magnesium alloy anodes are permitted only in tanks intended solely for water ballast.

2.5 Corrosion protection coatings for salt water ballast spaces

2.5.1 In case of vessels which normally carry sail water for ballast purposes, all ballast spaces, having boundaries formed by the hull envelopes, are to have a suitable corrosion protection coating applied in accordance with the manufacturer's requirements.

Section 3

Deck Covering

3.1 General

3.1.1 Where plated decks are sheathed with wood or an approved composition, reductions in plate thickness may be allowed.

3.1.2 The steel deck is to be coated with a suitable material in order to prevent corrosive action, and the sheathing or composition is to be effectively secured to the deck.

3.1.3 Deck coverings in the following positions are to be of a type which will not readily ignite where used on decks :

a) forming the crown of machinery or cargo spaces within accommodation spaces of cargo vessels

b) within accommodation spaces, control stations, stairways and corridors of passenger vessels.

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Chapter 3
Principles for Scantlings and Structure Details

Contents

Section	
1	General
2	Corrosion Additions
3	Plating
4	Stiffeners and Girders
5	End Attachments
6	Buckling

Section 1

General

1.1 Application

1.1.1 Scantlings of various plating, stiffeners and girders to meet the local strength requirement are to be determined in accordance with the general principles given in this Chapter.

The design values of loads are given in chapters relevant to the structures under consideration.

1.1.2 Scantlings of hull members contributing to the longitudinal strength are also to comply with the requirements of Ch. 4

1.1.3 Scantlings of hull members subjected to compressive stresses are also to comply with The requirements of Sec. 6.

1.2 Symbols

p = design pressure [kN/m^2] as given in -the relevant chapters calculated at The load point as given below;

Loadpoint for plates;

- midpoint of horizontally stiffened plate field
- half the stiffener spacing above the lower support of vertically stiffened plate field, or at the lower edge of plate when the thickness is changed within the plate field.

Load point for stiffeners:

- midpoint of span.

Load point for girders

- midpoint of load area supported by The girder.

s = stiffener spacing [mm], measured along the plating.

l = span of The stiffener, [m], in accordance with 4.1.1.

r = radius of curvature [mm].

S = span of the girder [m], in accordance with 4.1.2.

b = mean breadth [m], of The load area supported by the girder.

h_w = height of web, [mm), b, = width of flange,

[mm].

q = allowable bending stress, [N/mm^2] as given in the relevant Chapters.

Q_y = minimum yield stress of material, [N/mm^2], may be taken as 235 [N/mm^2] for normal strength steel.

k = material factor as defined in Ch.2, Sec.1.2.

E = modulus of elasticity, 2.06 x 105 [N/mm^2] for steel.

1.3 Frame spacing

1.3.1 The normal frame spacing between aft peak and 0.2L from F.P. may be taken as:

450 + 2L [mm] for transverse framing

550 + 2L [mm] for longitudinal framing.

1.3.2 In aft peak and fore peak the frame spacing is not to exceed 600 [mm] or that given in 1.3.1, whichever is less.

1.3.3 Where the actual frame spacing is higher than that mentioned above, the minimum thicknesses of various structural members as given in the Rules may require to be increased.

Section 2

Corrosion Additions

2.1 General

2.1.1 The thickness of plates, stiffeners and girders in tanks for water ballast and/or cargo oil and in holds of dry bulk cargo carriers is to be increased by a corrosion addition V as given in Table 2.1.1.

2.1.2 The required corrosion addition 'Z_c' to the section modulus of stiffeners and girders due to the thickness addition 't_c' mentioned above may be approximated as:

$$Z_c = \frac{t_c h_w (b_f + 0.3h_w)}{1000} [cm^3]$$

Table 2.1.1 : Corrosion addition t_c [mm]

Item	Space Category	t_c
Internal members within and plate boundary between spaces of the given category	Ballast tank	1.5 [1]
	Cargo oil tank	1.5
	Hold of dry bulk cargo carriers	2
Plate boundary between the two given space categories	Ballast tank/Cargo oil tank	1.5 [1]
	Ballast tank/Hold of dry bulk cargo carrier	2
	Ballast tank/Other category space	1.0
	Cargo oil tank/Other category space	1.0
	Hold of dry bulk cargo carrier/Other category space	1.0

Notes:

1) Where the relevant ballast or liquid cargo tanks extend upto the exposed weather deck the minimum corrosion addition in the region extending upto 1.5 [m] below the weather deck corrosion addition is to be increased by 0.5 [mm].
2) Hold of dry bulk cargo carriers refers to the cargo hooks of vessels with class notation Bulk Carrier and Ore Carrier.
3) Other category space denotes the hull exterior and all spaces other than water ballast and cargo oil tanks and holds of dry bulk cargo carriers.

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Section 3
Plating

3.1 General

3.1.1 Minimum requirements of thickness of various platings are given in relevant chapters.

3.1.2 The thickness T of plating subjected to lateral pressure is not to be less than

$$t = \frac{15.8s\sqrt{p}}{\sqrt{\sigma}} x10^{-3} + t_c[mm]$$

3.1.3 Any tapering of thickness of platings contributing to the longitudinal strength is to be based upon linear variation of stress s allowed at specified regions.

Section 4
Stiffeners and Girders

4.1 Determination of span

4.1.1 For stiffeners, The span 'l' [m] is to be taken as The length of the stiffener between The two supporting members less the depth of stiffener on crossing panel if any. Where brackets larger than those required in 5.1.2 are fitted, the span may be determined as shown in Fig.4.1.1.

For curved stiffeners, 'l' may be based on the chord length,

4.1.2 For girders, the span 'S' [m] is to be taken as The length of the girder between The two supporting members, less The web height of in-plane girder if any. and the correction for bracket 'b_c'. as shown in Fig.4.1.2.

4.2 Effective width of attached plating

4.2.1 The area of The attached plating, to be used in the calculation of sectional properties of the stiffeners and gilders, is to be taken as the cross-sectional area within The effective width of the attached plating.

4.2.2 The effective width of plating attached to a stiffener may be taken as the mean of spacings on either side of the stiffener.

4.2.3 The effective width of plating attached to a girder, 'be' is to be taken as per the following:

$$b_e = c \cdot b$$

where,

c = c_1 for girders with uniformly distributed loads or with six or more evenly spaced point loads

= c_2, for girders with three or less evenly spaced point loads.

Table 4.2.3. : Values of "C"								
a/b	0.5	1.0	2.0	3.0	4.0	5.0	6.0	≥ 7.0
C_1	0.19	0.38	0.67	0.84	0.93	0.97	0.99	1.00
C_2	0.11	0.22	0.40	0.52	0.65	0.73	0.78	0.80

For intermediate values of a/b and number of point toads, values of 'c' may be obtained by interpolation.

a = span of the girder, for simply supported girders, [m].

= 60 per cent of span of the girder, for girders fixed at both ends. |m].

4.2.4 In case of girders on corrugated bulkheads which run across the corrugations, the effective width of attached plating is to be taken as 10% of that obtained from 4.2.3.

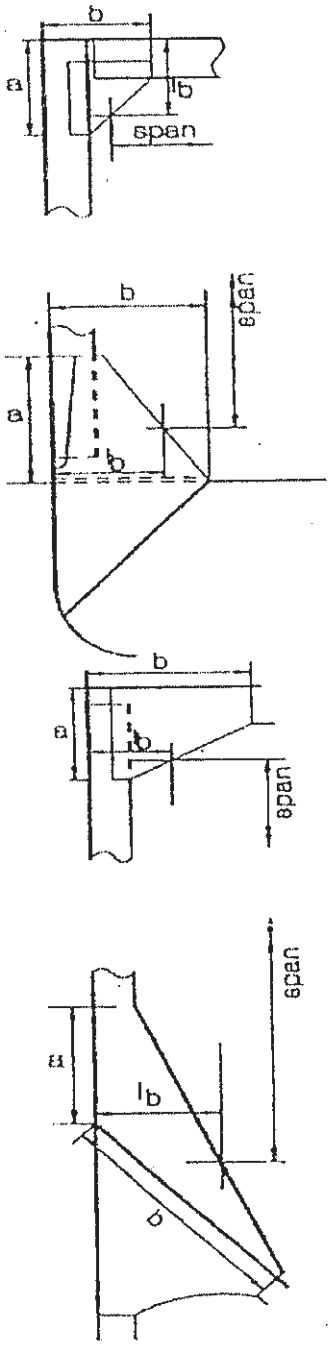
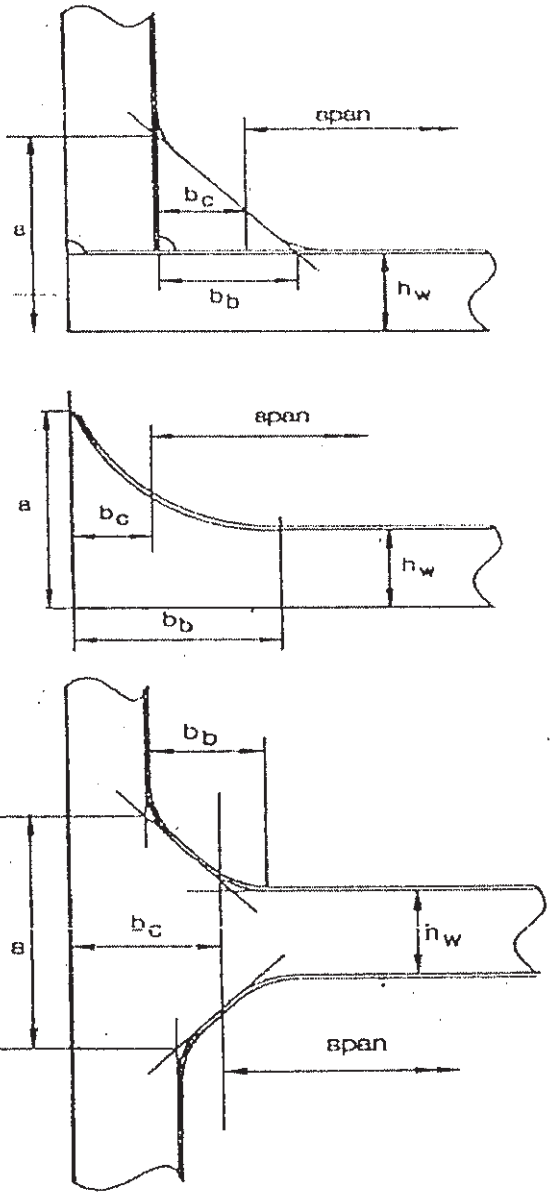


Fig.4.1.1



$b_c = b_b (1 - h_w/a)$

Fig.4.1.2

4.2.5 The effective cross sectional area of the attached plating is not to be less than that of the face plate.

4.3 Scantlings of stiffeners

4.3.1 The section modulus 'Z' of softeners subjected to lateral pressure is not to be less than:

$$Z = \frac{s.p.l.^2}{-m\sigma} + Z_c[cm^3]$$

where.

m = bending moment factor depending on the arrangement at the supports and variation of lateral pressure as given in the relevant chapters. Where not stated, The "m' value may generally be taken as:

= 12 for continuous longitudinal stiffeners

= 10 for transverse, vertical and non-continuous longitudinal stiffeners fixed at both ends.

= 8 for stiffeners simply supported at both ends.

4.3.2 Where stiffeners are not perpendicular to the plating, the section modulus as obtained from 4.3.1 is to be increased by the factor (1/cos a). a being the angle between the stiffener web and the plane perpendicular to the plating.

4.4 Scantlings of girders

4.4.1. The scantlings of simple girders subjected to lateral pressure which can be considered as conforming to the general beam theory are to satisfy the requirement given in 4.4.2.

4.4,2 The section modulus 'Z' of girders subjected to lateral pressure is not to be less than:

$$Z = \frac{b.p.s^2.10^3}{m\sigma} + Z_c[cm^3]$$

where,

m = bending moment factor depending upon the arrangement at supports and variation of lateral pressure as given in the relevant chapters. Where not stated, the 'm' value may generally be taken as 12 for continuous longitudinal girders and 10 for all other girders.

4.4.3Where openings are cut in the girder web, they are to be away from the girder ends and scallops for stiffeners; with their centre located as near to the neutral axis of the girder as practicable. Openings of depth exceeding 25% of the girder depth or 300 [mm] and, of length exceeding the depth of the girder or 60% of the secondary stiffener spacing, are to be reinforced all around at the edge; or alternatively by providing horizontal and vertical stiffeners.

4.4.4 Girders are to be provided with adequate lateral stability by tripping brackets titled generally at every fourth stiffener. Tripping brackets are also to be filled at the toes of end brackets and in way of concentrated loads such as heels of pillars or cross ties.

Section 5
End Attachments

5.1 End attachments of stiffeners

5.1.1 Continuity of all stiffeners participating in longitudinal strength is to be maintained over transverse members within 0.5L amidvessels. Longitudinal bulling at transverse members may be accepted provided the brackets connecting the ends of the longitudinal are of adequate size and are either continuous or properly aligned.

5.1.2 Scantlings of brackets fitted on stiffeners not participating in the longitudinal strength are not to be less than the following:

- The arm lengths, 'a and b' (see fig. 4.1.1) are to be such that :

i) a, b $\geq$ 0.8 L_B

and

ii) a + b $\geq$ 2.0 l_b

Where

lb = 24 $\sqrt{Z}$ + 75[mm]

- Thickness of unfledged bracket is to be not less than

$t = (4.0 + 0.3\sqrt{Z}) + t_c [mm]$

- Thickness of flanged bracket is to be not less than:

$t = (3.0 + 0.25\sqrt{Z}) + t_c [mm]$

- Width of flange, w £ 40 + Z/25 [mm], but not to be less than 50 [mm].
where,

Z is The section modulus [cm3], of the smaller stiffener, being connected.

5.2 End attachments of girders

5.2.1 The end attachments and supporting structure of the girders are to provide adequate resistance against rotation and displacement of the joint and effective distribution of the load from the member. Supporting members to which the girders are being connected, may require addition strengthening to provide adequate stiffness to resist rotation of the joint. Where the end attachment provides only a low degree of restraint against rotation, the girder is generally to be extended beyond the point of support by at least two frame spaces before being gradually tapered.

Connections between girders forming 3 ring system are to be such as to minimize stress concentrations at the junctions. Integral brackets are generally to be radiused or well rounded at the toes.

Where the face plate of the girder is not continuous over the bracket, the free edge of the bracket to be stiffened and the face plate of the girder is to be extended well beyond the toe of the bracket.

5.2.2 The thickness T of brackets on girder is not to be less than that of the girder web.

The arm length 'a' including the depth of girder is not to be less than:

$a = 83\sqrt{(Z/t)} [mm];$

where,

Z_c = the section modulus [cm^3], of the girder to which the bracket is connected.

The cross sectional area W of the face plate on the girder bracket is not to be less than;

$$A_1 = 0.001\ l_t\ [cm^2]$$

Where 1_t is the length [mm], of the free edge of the bracket.

Additional stiffeners parallel to the bracket 'ace plate are to be fitted on webs of large brackets. The aim length of an unstiffened triangular end panel of bracket is generally not to exceed 100 1 [mm].

Section 6
Buckling

6.1 General
6.1.1 The critical buckling stress σ_{cr} of plate panels and other members subjected to compressive loads is to be such that:

$$\sigma_{cr} \geq \frac{\sigma_c}{\eta}$$

Where
σ_c = compressive stress to be considered as per Sec.6.3

η = 1.0 for deck, longitudinally stiffened side shell and single bottom plating

= 0.9 for bottom, inner bottom plating in double bottom and transversely stiffened side shell plating.

$= \frac{0.7}{1+1_m/i}$ (need not be taken smaller than 0.3);

- for axially loaded members such as pillars, cross-bes. panting beams etc.. in general.
-to be reduced by 15 per cent where the loads are primarily dynamic in nature.

- for 'l_m' and 'l' See 6.2.2.

6,1.2 The critical compressive buckling stress 'σ_{cr}' determined as follows is not to be less than

the maximum compressive stress developed in the member is under consideration.

$\sigma_{cr} = \sigma_E$ When $\sigma_E < 0.5\ \sigma_V$

$$= \sigma_y\left(1-\frac{\sigma_y}{4\sigma_E}\right) when \sigma_E > 0.5\sigma_y$$

where.

σ_E = ideal elastic buckling stress as per Sec.6.2.

6.2 Ideal elastic buckling stress

6.2.1 The σ_E value for platings may be taken as:

$$\sigma_E = 0.9\ K\ E[(T - T_C)\ S]^2\ [N/mm^2]$$

where.

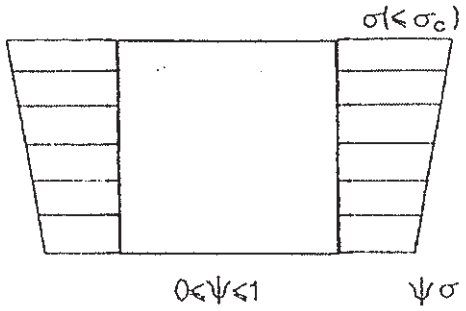
$$K = \frac{8.4}{\psi + 1.1}$$

- for plating with stiffeners in the direction of the compressive stress

$$= C\left[1+\left(\frac{s}{10001}\right)^2\right]^2 \frac{2.1}{\psi+1.1}$$

- for platings with stiffeners in the direction perpendicular to the compressive stress

ψ = ratio between the smaller and the larger values of the compressive stress assuming a linear variation (See Fig.6.2.1)



C = 1.30 when plating is stiffened by floors or deep girders

= 1.21 when stiffeners are angles or T sections

= 1.10 when stiffeners are bulb flats

= 1.05 when stiffeners are flat bars

s = shorter side of plate panel, [mm)

l = longer side of plate panel, [m]

6.2.2 The value for axially loaded members may be taken as:

σ_E = 0.001 C E (i / l m^2 [N/mm^3]

C = 1.0 for both ends hinged

= 2.0 for one end fixed

= 4.0 for both ends fixed

i = radius of gyration of the member, [cm].

= (I / a)

I = moment of inertia of the member, [cm^4], about The axis perpendicular to The direction of buckling being considered

a = cross sectional area of the member, [cm^2]

l_m = length of the member, [m].

Where end connections of a member are different with respect to the two principal axes, σ_E is to be found out for both cases using appropriate values of 'C and I,

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Chapter 4

Longitudinal Strength

Contents

Section	
1	General
2	Vertical Bending Moments
3	Hull Section Modules and Moment of Inertia
4	Opening in Longitudinal strength Members

Section 1
General

1.1 Application

1.1.1 Scantlings of hull members contributing to longitudinal strength are to comply- with the requirements given in this Chapter. These members are also to comply with the requirements of buckling strength given in Ch.3, Sec.6 and of local strength given in relevant chapters of PI,3.

1.1.2 Still water bending moments are to be calculated for all vessels with unusual or non-uniform weight or cargo distribution and for other vessels of L > 60 m.

Such vessels are to be provided with an approved loading manual which describes the loading conditions on which the design is based and also gives the values of still water bending moments and permissible limits.

1.2 Symbols

L, B, T, k as defined in Ch.1. Sec,2,
I_n = moment of inertia of hull girder, [cm4], about the transverse neutral axis al the section under consideration.

Z_n = vertical distance [m] of The horizontal neural axis above base line.

M_s = design still water bending moment [kN-m] as given in 2.1,2.

M_w = rule wave bending moment [kN-m] as given in 2.2.1.

Section 2
Vertical Bending Moments

2.1 Still water bending moment

2 11 Still water bending moments are to be calculated for the following loading conditions as *a* minimum:

a) Fully loaded condition with design cargo distribution(s)

b) Light condition with full consumables, stores, crew and ballast, if any.

In addition other loading conditions which may be more onerous, e.g. intermediate conditions of special loading or discharging sequences, are to be investigated.

2.1.2. The design value of still water bending moment Ms at 0.4L amid vessels is to be taken as the greater of the following:

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a) The maximum of sagging or hogging still water bending moments obtained for the loading conditions specified in Sec.2.1.1, and

b) $0.375\ L^2B$ [kN-m]

At locations outside 0.4L amidvessels the design value of still water bending moment Ms may be linerally reduced to zero at perpendiculars.

2.2 Wave toad conditions

2.2.1 The rule vertical wave bending moment M_w for 0.4L amidvessels is to be taken as

$$M_w = C\ L^2\ B\ [\ kN - m\]$$

where.

C = coefficient as per Table 2,2.1.

Table 2.2.1	
Zone	Coefficient C
1	0.30 for $L \leq 20$ m 0.3 + 0.05 (L-20) for $20 < L < 60$ 0.5 for $L \geq 60$ m
2	0.3
3	0.15

At locations outside 0.4 L amidvessels, the value of rule wave bending moment Mw is to be linerally reduced to zero at perpendiculars,

Section 3
Hull Section Modulus and Moment of India

3.1 Calculation of section properties

3.1.1 When calculating the moment of inertia and section module, the net sectional area (after deduction for openings) of all continuous longitudinal strength members is to be taken into account. Small isolated lightening holes in girders need from be deducted.

Superstructures not forming strength deck (See Ch,1. Sec.2.2). deckhouses, bulwarks and non-continuous longitudinal hatch coamings are not to be included in the above calculations.

In case of vessels with continuous trunks 01 longitudinal hatch coamings, their net sectional area may be included in the' calculations provided they are effectively supported by longitudinal bulkheads o: deep "girders. The section modulus at deck however, is then to be calculated as given in 3.1.3.

3.1.2 The main strength members included in the calculation of hull moment of inertia and section modulus are to extend continuously through the cargo region and sufficiently far towards the ends of the vessel. Longitudinal bulkheads are to terminate at effective transverse bulkheads and large transition brackets are to be fitted in line with the longitudinal bulkheads.

3.1.3 The midvessel section modulus 'Z' at deck or bottom about the transverse neutral axis is to be obtained as follows:

$$Z = I_n / (100.z) \quad [cm^3]$$

where.
z = the vertical distance [m] from the horizontal neutral axis upto the strength deck at side or the base line, as relevant.

However, in case of vessels where continuous trunks or longitudinal hatch coamings are to be included in the section modulus calculation as per Sec.3.1.1, the distance z for calculation of modulus at deck is to be taken as the greater of the following:

z = z as above
$z = z_n\ [0.9 + 0.2\ y/B]$

where,

z_n = the vertical distance from the horizon la l neutral axis to top of continuous strength number.

y = athwart vessel distance from the centerline of the vessel to the side of the strength member.

Zn and y are to be measured to the point giving the largest value of z.

3.2 Extent of high tensile steel

3.2.1 Where high tensile steels are used in the main hull structure in order to reduce the section modulus requirement, the vertical and longitudinal extent of its use is to be such that

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adjacent structure made or ordinary hull structural steel is not stressed beyond the stress level permissible for ordinary steel,

3.3 Section modulus requirement

3.3.1 At any transverse section, the hull section modulus Z, about the transverse neutral axis for the still water bending moments M_s given in 2.1 and wave bending moments M_w given in 2.2, is not to be less than:

$$Z = \left(\frac{M_s + M_w}{\sigma_L} \right) X10^3 [cm^3]$$

where,

σ_L = 175/k [N/mm^2] within 0.4L amidvessels

= 125/k [N/mm^2] within 0.1L from A.P. and F,P,

Between the specified regions σ_L is to be obtained by linear interpolation.

3.3.2 Scantlings of all continuous longitudinal members of hull girder based on The section modulus requirement in 3.3.1 are to be maintained within 0.4L amidvessels.

In the region outside 0,4L amidvessels, the scantlings ate to be gradually tapered to the local requirements at ends.

3.4 Moment of inertia requirement

3.4.1 The moment of inertia I_n, or the hull section about the transverse neutral axis, at midvessel, is not to be less than:

$$I_n = 3\ L.Z\ [cm^4]$$

where.

Z = Hull section modulus amidvessels as required by 3.3.1.

Section 4

Openings in Longitudinal Strength Members

4.1 Locations

4.1.1 As far as practicable, openings are to be avoided in the keel plate and in the bilge plate within 0.6L amidvessels.

4.1.2 Openings in the strength deck within 0.6L amidvessels are as far as practicable to be located inside The line of large hatch openings. Necessary openings outside this line are to be kept well clear of the vessel's side and hatch cornets.

4.1.3 Small openings are generally to be kept well clear of other openings in the longitudinal strength members.

4.2 Reinforcements

4.2.1 All openings are to be adequately framed and arrangements in way of corners and openings are to be such as to maintain structural continuity and minimize the creation of stress concentrations.

Corners of hatchways are to be reinforced as given in Ch.8, Sec.2. Smaller openings in the strength deck and outer bottom within 0.6L amidvessers are to be reinforced as given in 4.2.2 to 4,2.5 below. The area of these reinforcements is not to be included in the sectional areas used in the section modulus calculation.

4.2.2 Circular openings with diameter equal to or greater than 0.325 [m] are to have edge reinforcement having sectional area A not to less than:

$$A = 2.5\ b.t.\ [cm^2]$$

where.

b = diameter of the opening [m]
t = thickness of the plating [mm].

4.2.3 Elliptical openings are to have their major axis in the fore and aft direction. Where the ratio of the major axis to minor axis is less than 2, the openings are to be reinforced as given in 4.2.2 taking b as the breadth of the opening (minor axis).

Rectangular openings are to have their corners well rounded. Where corners are of circular shape the radius is not to be less than 20 per cent of the breadth of the opening and the edges are to be reinforced as given in 4.2.2 taking b as the breadth of the opening.

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Where corners are of elliptical shape as given in 4.2.3 or of streamlined shape as given in 4.3, the reinforcement will generally not be required provided that the transverse extension of the curvature.' a. shown in Fig. 4.3.2 is not less than:

$$a = 0.15b \text{ [m]}$$

4,2.5 Openings in side shell subjected to large shear stresses are to be of circular shape and are to be reinforced as given in 4.2.2 irrespective of the size of opening.

4.3 Hatchway corners

4.3.1 Where corners are of circular shape, the radius \ within 0.6L amidvessels is not to be less than

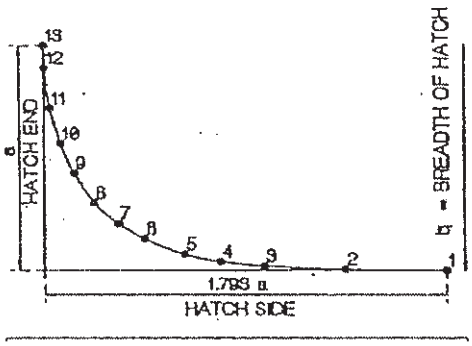
$$r = 0.05\ b \text{ [m]}, \text{ minimum } 0.3 \text{ [m]}$$

where,

b = breadth of the hatchway [m]

4.3.2 Where corners are of streamlined shape, as given by Fig. 4.3.2, the transverse extension of the curvature, a. is not to be less than

$$a = 0.05\ b \text{ [m]}, \text{ minimum } 0.3 \text{ [m]}$$



Ordinates of streamlined corner		
Point	**Abscissa - x**	**Ordinate - y**
1	1.793 a	0.0
2	1.381 a	0.002 a
3	0.987 a	0.021 a
4	0,802 a	0.044 a
5	0.631 a	0.079 a
6	0.467 a	0,131 a
7	0,339 a	0.201 a
8	0.224 a	0.293 a
9	0.132 a	0.408 a
10	0.065 a	0.548 a
11	0.022 a	0.712 a
12	0.002 a	0.899 a
13	0.0	1.000 a

Fig. 4.3.2 : Streamlined deck corner

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Chapter 5

Bar Keel, Stem and Stern frames

Contents

Section	
1.	General
2.	Bar Keel
3	Steam
4	Stern Frames

Section 1

General

1.1 Scope

1.1.1 This chapter provides requirement for bar keel, bar stem, stern frames and shaft brackets.

1.2 Material

1.2.1 All steel plates and sections, castings and forgings used in the constructions are to be listed and approved in accordance with the requirements of Ch.3, Ch.4 and Ch.5 of Pt.2 'Materials' of the Rules & Regulations (or the Construction and Classification of Steel Vessels (Main Rules), respectively. Material grades for plates and sections are to be selected as per Pt. 3, Ch.2,

1.2,2 Bar keels and stems may either be steel castings or forgings or rolled plates or bars.

1.2.3 Sternframes. rudder horns and shall brackets may be constructed of cast or Forged steel or may be fabricated from plates,

1.3 Symbols

1.3.1 L. T as defined in Ch.1. Sec.2.

Section 2

Bar Keel

2.1 Scantlings

2.1.1 The scantlings of bar keel are not to be less than ;

Depth = 75 + 0.75 L [mm]

Thickness = 10 + 0.4 L. [mm]

Minor deviations from the above values may be accepted provided the required sectional area is maintained.

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Section 3

Stem

3.1 Bar stem

3.1.1 The cross sectional area 'A' of a bar stem, below the summer load waterline, is not to be less than

$A=0.6L$ [cm^2]; or 12 [cm^2]

whichever is greater.

3.2 Plate stem

3.2.1 The thickness 't' of the plate stem below the summer load waterline is not to be less than:

$t = (0.08 L + 5.0)$ [mm]

3.2.2 The thickness of the plate stem may be gradually reduced to that of the side shell at the stem head.

3.2.3 The plate stems are to be supported by horizontal diaphragms spaced not more than 1.0 [m] apart. Where the stem plate radius is large, a centreline stiffener or web is to be provided.

Section 4

Stern Frames

4.1 General

4.1.1 Slemframes, shaft brackets etc. are to be designed such, that they are effectively integrated into the vessel's structure.

4.1.2 In castings, sudden changes of section or possible constrictions to the flow of metal during castings are to be avoided. All fillets are to have adequate radii, which in general should not be less than 50 to 75 (mm), depending on the size of the casting.

4.1.3 Fabricated and cast steel stern frames are to be strengthened al intervals by webs spaced not more than 700 [mm] apart. In way of the upper part of the slernframe arch, these webs are to line up with the floors.

4.1.4 Rudder posts and propeller posts are to be connected to floors of increased thickness.

4.1.5 It is recommended that the after body of the vessel be so shaped as to ensure adequate flow of water to the propeller so as to prevent uneven formation of eddies, as far as possible.

4.2 Sternframes

4.2.1 The scantlings of the propeller posts are not to be less than the following:

Forged propeller posts (see Fig. 4.2,1 (a))

$A = (8 + 0.4L) T$ [cm^2] for $L < 60$ [m]

$= 32 T$ [cm^2] for $L > 60$ [m]

Fabricated propeller posts (see Fig. 4.2.1 (b)).

$l = 150 \sqrt{T}$ [mm]

$w = 100 \sqrt{T}$ [mm]

$r = 18 \sqrt{T}$ [mm]

$t_1 = 11 \sqrt{T}$ [mm]

$t_w = 5 - \sqrt{T}$ [mm]

Cast steel propeller posts (see Fig. 4.2.1 (c))

$l = 125 \sqrt{T}$ [mm]

$w = 85 \sqrt{T}$ [mm]

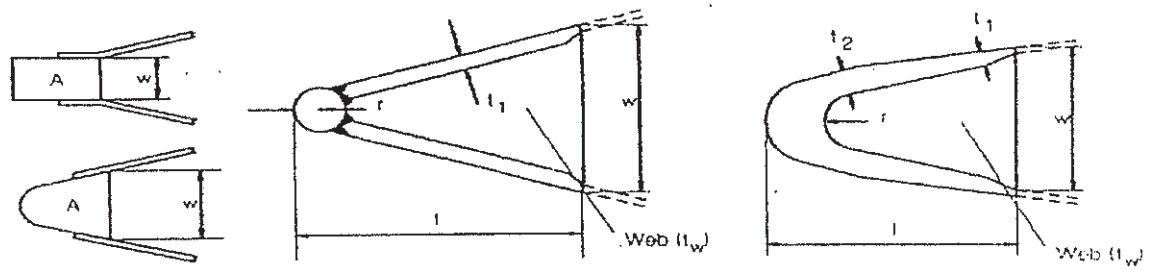
$r = 20 \sqrt{T}$ [mm]

$t_1 = 12 \sqrt{T}$ [mm]

$t_2 = 14 \sqrt{T}$ [mm]

$t_w = 7 \sqrt{T}$ [mm]

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(a) Forged (b) Fabricated (c) Cast

Where the sections adopted differ from the above, the section modulus about the longitudinal axis is to be equivalent to that with the Rule scantlings.

On sternframes without sole pieces, the modulus of the propeller post, about the longitudinal axis. may be gradually reduced by 15 per cent below the propeller boss, provided the thicknesses are maintained as above.

4.2.2 The wall thickness of the boss 't_b' in the propeller post is not to be less than :

$$t_b = 0.25d_{ts} + 12 \text{ [mm]}$$

where.

d_{15} = Rule diameter of tail shaft, [mm],

In fabricated stern frames the connection of the propeller post to the boss is to be by full penetration welds.

4.3 Sole piece

4.3.1 The section modulus "ZT" of the sole piece against transverse bending is not to be less than

$$Z_T = \frac{1}{90} \frac{cF_r x}{.b} [cm^3]$$

Where

F_r = Rudder force [N] as defined in Pt. 3, Ch. 12. Sec. 3

X = distance of the cross section under consideration from the centre line of rudder stock, [m] 'X' is not to be taken as less than a/2.

a, b, c = as shown in Figures 4.3.1 (a) and (b) [m]

The above requirement of Z_T is to be increased by 15 percent for cast steel sole pieces.

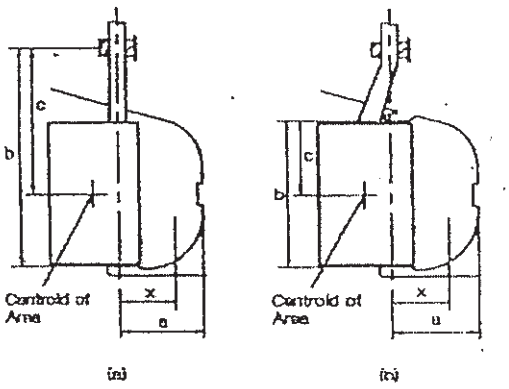


Fig. 4.3.1 : Open stern frame

4.3.2. The section modulus 'Z_v' of the sole piece against vertical bending is not to be less than :

$$Z_v = \frac{Z_T}{2} [cm^3]$$

4.3.3. The sectional area of sole piece is not to be less than

$$A_s = \frac{1}{5400} \cdot \frac{c.F_l}{b} [cm^2]$$

4.3.4. The sole piece is to extend at least two frame spaces forward of the forward edge of the propeller boss and beyond this, the cross section of the extension is to be gradually

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reduced to that necessary for an efficient connection to the keel plate. Fabricated sole pieces are to have adequate internal stiffening.

4.4 Shaft brackets

4.4.1Where the propeller shafting is exposed to the sea for some distance clear of the main hull, it is generally to be supported adjacent to the propeller by independent brackets having two arms, it is recommended that the angle included between the arms differs from the angle included between the propeller blades. In very small vessels the use of single arm brackets will be considered.

4.4.2 Fabricated brackets are to be designed to avoid or reduce the effects of hard spots and ensure a satisfactory connection to the hull structure. The connection of the arms to the bearing boss is to be by full penetration welding.

4.4.3. Generally, bracket arms are to be carried through the shell plating and attached to floors or girders of increased thickness, The shell plating in way of shaft brackets is to be increased in thickness. to a minimum of 1.5 times the Rule bottom shell plating thickness amidvessels. In way of the bracket arms an insert plate is to be provided of thickness not less than:

$t = 1.6 \sqrt{d_{ts}}$ where d_{ts} is the tailshaft diameter.

The connection of The bracket arms to the shell plating is to be by full penetration Welding.

4.4.4 The scantlings of solid or built-up shaft brackets are to comply with The following:

$t = 0.4\ d_{ts}$ [mm]

$A = 4.5\ d_{ts}^2 - 10\text{-}3$ [cm^2]

$Z_T = 30\ d_{ts}3 - 10^{-6}$ [cm^3]

where,

t = thickness of The bracket arms

A = cross sectional area of the bracket arms

Z_T = Section modulus of The bracket arms against transverse bending

Chapter 6
Bottom Structure

Contents

Section	
1	General
2	Structural Arrangement and Details
3	Design Loads
4	Bottom and Inner Bottom Plating
5	Single Bottom
6	Double Bottom
7	Engine Seatings

Section 1
General

1.1 Scope

1.1.1 The scantlings and arrangement of bottom structure as defined in Ch. 1, Sec. 2 are to comply with the requirements given in this Chapter.

1.2 Symbols

L, B, T, C_b, k as defined in Ch. 1 Sec. 2,

s = spacing of stiffeners, [mm]

l = span of stiffeners, [m]

b = spacing of girders, [m]

S = span of girders [m]

t_c, Z_c are corrosion additions to the thickness and section modulus respectively, as given in Ch. 3 Sec. 2.1.

$$f_B = \frac{Z_R}{Z_B}$$

Where

Z_R = Rule midvessel section modulus [cm^3] as required by Ch. 4.

Z_B = Actual midvessel section modulus [cm^3] provided at bottom.

Section 2
Structural Arrangement and details

2.1 General

2.1.1 Depth of wells constructed in the double bottom, in the connection with the drainage arrangement of holds, is to be kept in the minimum.

2.1.2 The continuity of the bottom, bilge and inner bottom longitudinal is to be maintained in accordance with Ch. 3, Sec. 5.1.1.

2.1.3. The bilge keel and the ground bar to which it is attached, are to be gradually iapered at ends and arranged to finish in way of suitable.

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internal stiffening. Butt welds in the bilge keel and the ground bar are to be well clear of each other and those in the shell plating.

2.1.4 The weld connections are to comply with the requirements of Ch.16.

2.2 Access, ventilation and drainage

2.2.1 Adequate access is to be provided to all parts of the double bottom. Where the vertical dimension of the lightening hole exceeds 50 percent of the web height adequate reinforcements are to be provided. The diameter of lightening holes in the bracket floors is not to exceed 1/3 of the breadth of the brackets. Lightening holes or manholes are normally not to be cut in floors or girders towards their ends and under large pillars or supporting structures. Manholes in inner bottom are to have reinforcement rings, and the man hole covers in the inner bottom plating in cargo holds are to be effectively protected. The edges of all holes are to be smooth.

2.2.2 To ensure the free passage of air and water from all pals of the tanks to air pipes and suctions, air and drain holes are to be provided in all non-watertight members. The air holes are to be placed as near to the inner bottom as possible and their total area is to be greater than The area of the filling pipes. The drain holes are to be placed as near to the bottom as possible.

2.2.3. The access opening to pipe tunnel is to be visible above the floor plates and is to be fitted with a rigid watertight closing device. A notice board staling that the access opening to the pipe tunnel is to be kept closed, is to be fitted near the opening. The opening, is to be regarded as an opening in watertight bulkhead.

Section 3

Design Loads

3.1 Bottom Shell

3.1.1. The Design pressure 'p' [kN/m^2] on outer bottom is to be taken as

$P = 10\ T_1$ [kN/m^2]

T_1 to be obtained from Table 3.1.1.

Table 3.1.1 : Values of T_1	
Zone	T_1
1	T + 1.0 [m] for L > 60 [m] T + 0.6 [m] for L < 20 [m]
2	T + 0.6 [m]
3	T + 0.3 [m]
For intermediate values of L in Zone 1, T_1 to be Linearly interpolated	

In way of tanks, the design pressure is not to be taken less than internal pressure 'p' given in 3.2.1.

3.2. Watertight ftoors and girders

3.2.1. The design pressure 'p' on watertight ftoors and girders in double bottom tanks is to be taken as the greater of :

$P = 6.7\ h_p$ [kN/m^2]

$P = 10\ (h_s + 1)$ [kN/m^2]

Where

h_p = vertical distance [m], from the toad point to the top of air pipe.

h_s = vertical distance [m] from the load point to top of the tank.

3.3 Inner bottom

3.3.1 The design pressure 'p' on The inner bottom is to be taken as the greater of that given in 3.2.1 and The following:

In way of cargo holds, the design pressure 'p* is not to be taken as less than:

$$p = 12.5\ pH\ [kN/m^2]$$

where,

p = cargo density [t/m^3] normally not to be taken as less than 0.7 [t/m^3]

H = height [m], to deck or top of hatchway coaming.

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Section 4

Bottom and Inner Bottom Plating

4.1 Keel plate

4.1.1 The width of the plate keel is not to be less than (400+10L) [mm]. The thickness is to be 1 (mm) greater than that required (or the adjacent bottom plating.

4.2 Bottom, bilge and inner bottom plating

4.2.1 The thickness of the bottom and inner bottom plating is to be not less than:

- for bottom plating

$t = (t_o + 0.04L)\ \sqrt{k} + t_c$ [mm]

- for inner bottom plating.

$= (t_o + 0.03L)\ \sqrt{k} + t_c$ [mm] but not less than 6.0 [mm]

Where

t_o = 4.0 [mm], in general.

= 6.0 [mm], for Inner bottom plating where ceiling is not filled.

= 4.0 [mm] for inner bottom plating where wooden ceiling of 50 [mm] thickness is fitted.

4.2.2 The bottom, bilge and inner bottom plating is also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

4.2.3 For vessels discharged by grabs and where no ceiling of fitted, the plating thickness Y of the inner bottom and exposed parts of stopping bulkheads is not to be less than:

$t = 0.0085\ (s+800)\ \sqrt{k} + t_c$ [mm]

4.2.5 Where the inner bottom is subjected to wheel toads from cargo handling vehicles, the scantlings are also to comply with the requirement given in Ch.8., Sec.6.

Section 5

Single Bottom

5.1. Transverse framing

5.1.1 Plate floors of following scantlings are to be titled at every frame

depth at centerline d = 40B [mm] in general

thickness or web, t = d/100 + 2.5 [mm]

Section modulus

$Z = 0.006\ s.l_f^2.\ T_1$ [cm^3] in cargo holds

$= 0.0072\ s.l_f^2.\ T_1$ [cm^3] in machinery and other spaces

where

l_f, = span of floor, measured on the top of floor plate from side to side

= longitudinal bulkheads are provided the span, l_f not to be taken less than 0.4B.

T_1 is as defined in 3.1.1.

The thickness of face plate is not to be less than 1/15 of the face width.

The top of floors, in general, is to be level from side to side. However, in -vessels having considerable rise of floor, the depth of web at 10 per cent of the span from ends, is not to be less than half the depth at centre line.

If the height of floors between engine girders is reduced in way of crankcase, the face plate area is to be suitably increased however the reduced height c normally not to be less man 2/3 of 'd' as given above.

5.1.2 On all vessels one centre girder is to be fitted and in addition side girders are to be fitted such that the spacing of girders doesnot exceed 3.0 (m]. The girders are to extend as far forward and aft as practicable and where they are cut at

transverse bulkheads the longitudinal continuity is to be maintained. Where the bottom structure changes into a double bottom structure, the bottom girders are to extend at least 3 frame spaces into double bottom structures.

The scantlings or the centre girders and side girders are to be not less than that of the floors. The thickness of face plates is not to be less than 1/15 of the face width.

5.1.3 In the after peak of single screw vessels, the height of the floors is to be increased such that their upper edge is well above the stern tube.

5.1.4 Where single bottom in the cargo region is stiffened by transverse frames supported by longitudinal girders, the scantlings of the frames and longitudinal girders are to be determined in accordance with 6.2,3 and 5.2.3, 5.2.4 respectively.

5.2 Longitudinal framing

5.2.1 The spacing of bottom transverses is normally not to exceed 3.0 (m]. The bottom transverses are to be supported by primary girders or longitudinal bulkheads. Where the design does not incorporate a centreline bulkhead, at least a docking girder is to be provided. The scantlings of simple girders and transverses are to be obtained in accordance with 5.2.3. The scantlings of a complex girder system are to be based on a direct stress analysis.

5.2.2 The section modulus 'Z' of the bottom longitudinal is not to be less than:

$$Z = \frac{spl^2}{12} + Z_c[cm^3]$$

where,
p = applicable design pressure [kN/m^2], as given in 3.1.1.

a = (215 -140 f_B) / k, max. 160/k [N/mm^3] within 0.4L amidvessels

= 160/k [N/mm^2] within 0.1L from ends.

Elsewhere σ may be obtained by linear interpolation.

5.2.3 The section modulus 'Z' of bottom girders is not to be less than:

$$Z = \frac{10^3\ b\ p\ S^2}{m\ \sigma} + Z_c\ [cm^3]$$

where,

m = 10 in general

p = applicable design pressure [kN/m^2], as given in 3.1.1.

σ = (190= 130 f_B)/k, max160/k [N/mm^3]
for continuous longitudinal girders within 0.4L amidvessels.

= 160/k [N/mm^2]
for longitudinal girder wonton 0.1L from ends and for transverse girders in general.

Elsewhere s may be obtained by linear interpolation.

5,2.4 Tripping brackets are to be fitted in accordance with the requirements given in Ch.3, Sec.4,4.4.

Section 6

Double Bottom

6.1 General

6.1.1 Where double bottom spaces are used as tanks, the centre girder is to be watertight unless the double bottom is divided by watertight side girders or the tanks are narrow.

The depth 'd' of the centre girder is not to be less than:

d = 250 + 20B + 50 T [mm]
with a minimum of 650 [mm]

In case of vessels with considerable rise of floors the depth 'd' may have to be increased.

6.1.2. The thickness 't' of the bottom girders and floors is not to be less than

$t = (0.007d+3)\ \sqrt{k}$ [mm].

6.1.3 The section modulus 'Z' of the stiffeners on girders and floors forming boundaries of double bottom tanks is not to be less than:

$$Z = \frac{spl^2}{10\sigma} + Z_c \ [cm^3]$$

where,

p = design pressure [kN/m^2], as given in 3.2.1;

σ = (210 130 f_B)/k, max. 160/k [N/mm^2]
for longitudinal stiffeners within 0.4 L amidvessels

= 160/k [N/mm^2]
for longitudinal stiffeners within 0.1L from ends and for transverse or vertical stiffeners in general.

Between the regions specified above s for longitudinal stiffeners may be obtained by linear interpolation.

Longitudinal softeners are to have end connections, other stiffeners may be sniped al ends provided the section modulus Z is increased by 40 per cent.

6.1.4 The longitudinal girders are to be satisfactorily stiffened against buckling in accordance with the requiremenls given in Ch.3. Sec.6.

6.2 Transverse framing

6.2.1 The side girders are normally to be fitted at a spacing not exceeding 4.0 [m] and are to be extended as far forward and aft as practicable. The girders are to be stiffened at every bracket floor by a vertical stiffener of depth same as that of reverse frame and thickness that of the girder,

6.2.2 Plate floors are to be fitted under bulkheads, pillars, thrust seating, boiler bearers and in way of change of depth of double bottom. In engine room, plate floors are to be fitted at every frame. Elsewhere plate floors are to be fitted al least every fifth frame, the spacing not exceeding 3 C [m]

6.2.3 Where bracket floors are fitted the section modulus 'Z' of the bottom frames and reverse frames is not to be less than:

$$Z = \frac{Spl^2k}{1.6} + 10^{-3} + Zc \ [cm^3]$$

Where,

p = applicable design pressure [kN/m^2], as given in 3.1.1 and 3.3.1 for bottom frames and reverse frames respectively.

l = span of frames [m] measured between girder or brackets.

Where vertical struts according to 6.2.4 are fitted, the section modulus of bottom and reverse frames may be reduced by 35 per cent.

6.2.4 The cross sectional area 'A' of the struts is not to be less than

$A = c.k.l.s.T.\ [cm^2]$

where.

$c = 7x10^{-4}$ in way of ballast tanks

$= 6x10^{-4}$ elsewhere

l = actual span [m], without considering the strut..

The moment of inertia I of the struts is not to be less than:

$I = 2.5\ A.d2\ x\ 10\text{-}6\ [cm^4]$

where,

d = depth of double bottom, [mm].

6.2.5 The bottom frames and reverse frames are to be attached to the centre girder and margin plate by means of brackets of same thickness as that of the plate floors. The breadth o(The brackets is not to be less than 0.75 limes the depth of the centre girder and the brackets are to be flanged 75 [mm] at their free edges.

6.3 Longitudinal framing

6.3.1 The side girders are normally to be fitted at a spacing not exceeding 5.0 [m] and are to be extended as far forward and aft as practicable.

6.3.2 The plate floors are to be filled under bulkheads, pillars, thrust sealing and boiler bearers In engine room plate floors a/e to be fitted a: every second side frames. Additionally, under The main engine seatings, floors extending to the first side girder outside the engine seating, are to be fitted at intermediate frames. The spacing of floors is normally not to exceed 3.0 [m).

6.3.3 The plate floors are to be stiffened at every longitudinal by a vertical stiffener of depth same

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as that or the inner bottom longitudinal and thickness as that of the floor. Between plate floors, transverse brackets are to be field at every frame at the margin plate and at a spacing not exceeding 1.25 [m] on either side of the centre girder. The thickness of brackets is to be same as that of the plate floors. The brackets are to extend upto the adjacent longitudinal and are to be flanged 75 (mm) at their free edges.

6.3.4 The section modulus 'Z' of the bottom and inner bottom longitudinal is not to be less than :

$$Z = \frac{spl^2}{12\sigma} + Z_c [cm^3]$$

where

p = applicable design pressure [kN/m^2], as given in 3.1.1 and 3.3.1 for bottom longitudinal and inner bottom longitudinal respectively;

l = span of longitudinal [m]. measured between the plate floors

a = (210 - 140 f_B)/k [N/mm^2]. maximum 160/k [N/mm^3] for bottom longitudinal within 0.4L amidvessels

= (210 - 100 f_e)/k [N/mm^2], maximum 160/k [N/mm^2] for inner bottom longitudinal within 0.4L amidvessels

a = 160/k [N/mm^2] within 0.1L from ends,
Between The regions specified above, s may be obtained by linear interpolation.

Where vertical struts according to 6.2,4 are Titled, The section modulus of the bottom and inner bottom longitudinal nay be reduced by 35 per cent.

Section 7

Engine Seating

7.1 General

7.1.1 It is recommended that the depth of the floors or double bottom in way of engine foundations be increased.

7.1.2 Sufficient fore and aft girders are to be arranged in way of the main machinery to effectively distribute its weight and to ensure adequate rigidity of the structure. The girders are generally to extend over the full length of the engine room and are to be suitably scalped into The bottom structure beyond.

7.1.3 The scanning of engine sealing are to be adequate to resist gravitational, thrust, torque, dynamic and vibratory forces which may be imposed on them. The recommendations given by the engine manufacturer are also to be taken into account.

7.1.4 Where the top plate of the engine sealing is situated above the floors or the inner bottom, adequate transverse strength by means of brackets in line with the floors is to be ensured. in way of the recess for crankcase, brackets as large as practicable are to be fitted.

7.1.5 Lightening hotes in engine foundations are to be kept as small as practicable and the edges are to be suitably reinforced.

7.2 Recommended scantlings

7.2.1 For engines of power less than 1500 kW and RPM greater than 1200. The scantlings of engine girder face plate, web and floors in way of engine sealing may be calculated as given below. Scantlings for other engines will be specially considered.

Top plate area; A = 20 + 120 (P/R) [cm^2]

Thickness of top plate; t_p = 0.1A + 14 [mm]

Girder web thickness; t_g = O.043A + 7 [mm]

Floor web thickness; t_f = 0.02A + 6 [mm]

Where

P = maximum power of the engine [kW]

R = rpm of engine at maximum power

End Of Chapter

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Chapter 7

Side Structure

Contents

Section	
1.	General
2.	Structural Arrangement and Details
3.	Design Loads
4.	Side shell plating and stiffeners
5.	Girders

Section – 1

General

1.1. Scope

1.1.1 The scantlings and arrangement of side structure as defined in Ch. 1, Sec. 2 and also those of sides of the superstructures are to comply with the requirements of this Chapter.

1.2 Symbols

L, B, T, C_b, k as defined in Ch.1, Sec.2.

s = spacing of stiffeners, (mm).

l = span of stiffeners, [m].

b = spacing of girders, [m].

S = span of girders, [m].

t_c, Z_c = corrosion additions to thickness and section modulus respectively, as given in Ch.3, - Sec. 2.1

$$f_D = \frac{Z_R}{Z_D}$$

$$f_B = \frac{Z_R}{Z_B}$$

$f_s = f_D$ for side shell area above neutral axis

$= f_B$ for side shell area below neutral axis

where,

Z_R = Rule midship section modulus [cm3] as required by Ch.4.

Z_D, Z_B = Actual midship section module [cm^3] provided at deck and bottom respectively.

Section 2

Structural Arrangement and Details

2.1 General

2.1.1 The vessel's side shell may be stiffened longitudinally or vertically.

2.1.2 Where the side shell is stiffened longitudinally, the continuity of the side longitudinals, within a distance of 0.15D from bottom or from strength deck is to be maintained in accordance with Ch.3, Sec. 5.1.1. The web

frames are to be fitted in line with the bottom Transverses or plate floors.

2.1.3 The position, shape and reinforcement of sea inlets or other openings in side shell are to be in accordance with the requirements of Ch.4.

2.1.4 In the case of superstructures exceeding 0.15L in length and ending within 0.5L amidvessels, the side plating of the superstructures is to be increased by 25 per cent in way of the break.

2.1.5 The thickness of the shell plating is to be increased locally by 50 per cent in way of sternframe, propeller brackets and rudder horn. For reinforcements in way of anchor pockets, hawse pipes etc. refer to Ch.13.

2.1.6 The weld connections are to comply with the requirements of Ch,14.

2.2. Sheer strake

2.2.1 The thickness of sheer strake as obtained from 4.1.3 is to be increased by 30 per cent on each side of a superstructure end bulkhead located within 0.5L amidvessels if the superstructure deck is a partial strength deck.

2.2.2 Where a rounded sheer strake is adopted, the radius in general, is not to be less than 15 times the plate thickness.

2.2.3 Bulwarks are generally not to be welded to the top of the sheer strake within 0.6L amidvessels.

2.2.4 Where the sheer strake extends above the deck stringer plate, the top edge of the sheer strake is to be kept free from notches and drainage openings if any, are to have smooth transition in the longitudinal direction.

Section 3
Design Loads

3.1 External pressure

3.1.1 The design pressure 'p' on side shell is to be taken as per Table 3.1.1.

3.2 Internal tank pressure

3.2.1 Where the side shell forms a boundary of a Sank, the design pressure 'p' is to be taken as the greater of external pressure given by 3.1.1 and the internal tank pressure 'pi' given by 3.2.2.

3.2.2 The internal tank pressure 'pi' is to be taken as the greater of:

$$p_i = 10(h_s + 1) \quad [kN/m^2], \text{ or}$$

$$= 6,7hp \quad [kN / m^2]$$

Table 3.1.1
Design pressure 'p' pkN/m^2] [a)]

Zone		For load points below the max, Load waterline	For load points above the max, Load waterline
1	L ≥ 60 [m]	$10h_O + \left(15 - 5\frac{h_o}{T}\right)$	15 – 10 h_o
2	L ≤ 20 [m] [b)]	$10h_O + \left(9 - 3\frac{h_O}{T}\right)$	9 – 10 h_o
3		$10\ h_O + \left(5 - 2\frac{h_O}{T}\right)$	5

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a) 'p' is not be taken as less than 5 [kN/m^2]

b) For intermediate lengths (L) in Zone 1, the value of 'p' is to be linearly interpolated.

c) h_O = vertical distance [m], from the maximum load waterline to the load point.

Where,

h_s = The vertical distance [m] from the toad point to the top of tank

h_p = vertical distance [m], from the load point to the top of air pipe.

For very large tanks which may be partially filled sloshing pressures may have to be considered.

Section 4

Side Shell Plating and Stiffeners

4.1 Side shell plating

4.1.1 the thickness 't' of side shell is not to be less than :

$$t = (4 + 0.04L)\ \sqrt{k} + t_c\ [mm]$$

4.1.2. The side shell plating is also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

4.1.3. The breadth of the sheer strake is not to be less than 100 D [mm].

Where the thickness of the strength deck plating is greater than that required for side plating, the sheer strake thickness is not to be less than the mean of the two values.

4.2 Side shell longitudinal

4.2.1 The section modulus 'Z' of side longitudinal is not to be less than

$$Z = \frac{spl^2}{12} + Z_c\ [cm^3]$$

Where

p = applicable design pressure at midpoint of the span [kN/m^2].

σ = (215 -145 f_s) / k. maximum 160/k [N/mm^2] for side longitudinal at deck/bottom level within 0.4L amidships.

= 160 / k [N / mm^2] at neutral axis within 0.4 L amidship.

= 160 / k [N / mm^2] within 0.1 L from ends and at the level of short superstructure decks.

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Between the regions specified above 's' may be obtained by linear interpolation.

4.3 Main frames

4.3.1 The section modulus 'Z" of the main frames bracketed at both ends as per 4.3.2 is not to be less than :

$$Z = \frac{spl^2}{2400} + Z_c[cm^3]and$$

$$= 5.5\sqrt{(L.K.)}[cm^3]$$

where,

p = applicable design pressure at midpoint of the span or mean of the pressures at two ends, whichever is greater, [kN / m^2].

4.3.2. Main frame brackets are to be as follows :

Length of the bracket :

- for upper bracket : 70 l [mm]

- for tower bracket : 120 l [mm]

Section modulus at end (including bracket):

- for upper bracket : 1.7 Z [cm^3]

- for tower bracket : 2.0 Z [cm^3]

Where,

Z = section modulus of main frame as given in 4.3.1.

Where the free edge of the bracket exceeds 40 times the bracket thickness, the brackets are to be flanged. The flange width is to be at least 1/15 of the length of the free edge.

4.3.3 Brackets at ends of the main frame may be omitted provided the frame is carried through the supporting members and the section modulus obtained as per 4.3.1 is increased by 75 per cent.

4.4 Superstructure frames

4.4.1 Superstructure frames located between the collision bulkhead and the after peak bulkhead are to have section modulus 'Z' not less than:

$$Z = 0.005\ s\ l^2\ k \quad [cm^3]$$

4.4.2 The lower end of the superstructure frame is to be connected to the bracket or frame below or else it is to be bracketed above the deck. The upper end is to be bracketed to the deck beam or longitudinal.

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4.5 Peak frames

4.5.1 Vertical peak frames forward of the collision bulkhead and aft of the after peak bulkhead are to have section modulus 'Z' not less than

$$Z = \frac{spl^2}{1600} + Z_c[cm^3]and$$

$$= 5.5\sqrt{(L.K.)}[cm^3]$$

Where
p = applicable design pressure [kN/m^2] as gi... in Sec.3.

4.5.2 Peak frames are to be bracketed at to... and. bottom and in way of side stringers, the... connection is to provide adequate shea... strength.

Section 5

Girders

5.1 General

5.1.1 Web frames are to be fitted in way of hatch end beams and deck transverses.

5.1.2In the engine room, web frames are to be tilted at the forward and aft end of the engine and every 5th frame in general, The section modulus Z' of the web frame and side stringers is to be obtained as per 5.1.5 taking 'b' as the mean of the web frame or stringer spacing respectively, on either side. The depth of the webs and stringers are not to be less than 2.5 times the depth of the ordinary frames.

Adequate deep beams are to be provided in line with the web frames.

5.1.3 In peak spaces, side stringers supporting vertical peak names are normally to be fitted at every 2.6 [m]. The section modulus 'Z' of the stringers is to be obtained as per Sec. 5.1.5. The stringers are to be supported by web frames.

5.1.4 The scanning of simple girders and web frames supporting frames and longitudinals are to be in accordance with 5.1.5. The scantlings of webs supporting fully effective side stringers are to based on point loadings and 's' values given in 5.1.5. The scantlings of the complex-girder system are to be based on a direct stress analysis. The buckling strength of the cross lies, where fitted, is to comply with the requirement given in Ch 3. Sec 6.

5.1.5 The section modulus 'Z' of simple girders and web frames is not to be less than :

$$Z = \frac{bps^2.10^3}{m\sigma} + Z_c[cm^3]$$

where.

p = applicable design pressure [kN/m^2], as given in Sec 3.

m = 12 for continuous longitudinal girders with end attachments in accordance with Ch.3, Sec.5,

= 10 for other girders with end attachments in accordance with Ch.3, Sec.5.

σ = (190 - 45 f_s)/k, max 160/k [N/mm^2], for continuous longitudinal girders within 0.4L amidvessels.

= 160/k [N/mm^2] for longitudinal gilders within 0.1L from ends and for web frames in general.

Between the regions specified above, s may be obtained by linear interpolation.

5.1.6 The net cross sectional area 'A' of the girder web at ends is not to be less than

A = 0.06 Sbpk + 0.01 h t_c [cm^2] for stringers and upper ends of the web frames.

= 0.08 Sbpk + 0.01 ht_c [cm^3] for tower ends of the web frames.

where,

H = girder height [mm].

5.1.7. Tripping brackets are to be fitted in accordance with the requirements given in Ch. 3, Sec. 4.4.4.

End of Chapter

Chapter 8

Deck Structure

Contents

Section	
1	General
2	Structural Arrangement and Details
3	Design Loads
4	Deck Plating and Stiffeners
5	Deck Girders and Pillars
6	Decks for Wheel Loading

Section 1

General

1.1 Scope

1.1.1 The scantlings and arrangement of deck structure as defined in Ch. 1. Sec. 2 are to comply with the requirements given in this Chapter.

1.2 Symbols

L.B.T., C_b, k as defined in Ch. 1. Sec. 2.

s = spacing of stiffeners, [mm]

l = span of stiffeners, [m]

b = spacing of girders, [m]

s = span of girders, [m]

t_c, Z_c = corrosion additions to thickness and section modulus respectively as given in Ch. 3, Sec. 2.1.

$$f_D = \frac{Z_R}{Z_D}$$

Where,

Z_R = Rule midvessel section modulus [cm^3], as required by Ch. 4.

Z_D = actual midvessel section modulus [cm^3], provided at deck calculated as per Ch. 4.

Section 2

Structural Arrangement and Details

2.1. General

2.1.1. In tankers, the deck is normally to be stiffened longitudinally in the cargo tank region, however, where L does not exceed 75 [m], consideration may be given to transversely stiffened decks.

2.1.2 The continuity of the deck longitudinal is to be maintained in accordance with Ch. 3, Sec. 5.1.1.

2.1.3. The deck within the line of hatchway openings is preferably to be stiffened

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transversely or alternatively the arrangements are to provide adequate transverse buckling strength. Where the deck outside the line of hatchway opening is framed longitudinally, the transverse beams or buckling stiffeners between the hatchways are to extend at least upto the second longitudinal from the hatch side to equivalent.

2.1.4. In vessels with large hatch opening's the effective cross-sectional area of the deck between the hatchways is to be sufficient to withstand the transverse toad acting on the vessel's sides.

2.1.5. The weld connections are to comply with the requirements of Ch. 14.

2.1.6. Hatchway corners are to be of streamlined, elliptical or circular shape as given in Ch. 4. Where shapes other than the streamlined shape or equivalent are adopted, insert pleats are to be fitted at the hatch corners in strength deck. The insert plates are to be 25 percent thicker than the deck plating outside the line of hatchways and are to extend as shown in Fig. 2.1.6. The butts of insert plates are to be well clear of those in coaming.

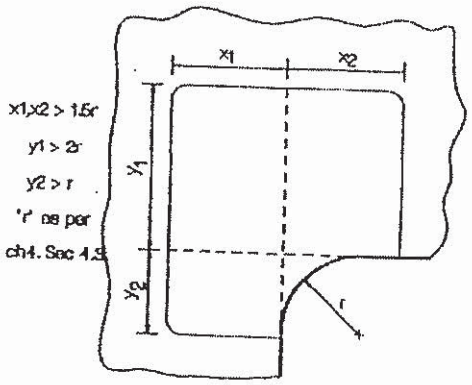


Fig.2.1.6 : Extent of insert plate

Section 3

Designs Loads

3.1 Weather deck

3.1.1 The design pressure 'p' on exposed decks is to be taken as:

$p = H, - 10\ h_o$ [kN/m^2] minimum 5 [kN/m^2]

where,

h_o = vertical distance [m], from the maximum toad waterline to the deck.

H_1 = as given in Table 3.1.1.

Table 3.1.1.	
Zone	H_1
1	9 for L ≤ 20 [m] 9 + 0.15 (L-20) 20 < L < 60 15 for L ≥ 60 [m]
2	9
3	5

3.1.2. for decks subjected to charge loading the design pressure is to be taken as :

P = 12.5 q [kN/m^2]

Where 'q' is deck cargo loading [t/m^2]

3.1.3. For weather decks forming crowns of tanks, the design pressure 'p' is to be taken as the greater of that given by 3.1.1. and 3.3.2.

3.2 Accommodation decks

3.2.1 The design pressure 'p' on accommodation decks is to be taken as :

$p = 4.5$ [kN/m^2]

3.2.2 For decks forming crowns of tanks the design pressure 'p' is to be taken as the greater of that given by 3.2.1 and 3.3.2.

3.3 Decks forming tank boundaries

3.3.1 The design pressure 'p' for decks forming the bottom of a tank may be taken as the greater of the following:

$p = 6.7\ h_p$ [kN/m^2] or

$= 10\ (h_s + 1)$ [kN/m^2]

Where,

h_P = vertical distance [m], from the deck to the top of air pipe.

h_S = vertical distance [m], from the deck to the top of the tank.

3.3.2. The design pressure 'p' for decks forming the crown of a tank may be taken as :

$P = 6.7\ h_P$ [kN/m^2]

Where, h_P is as given in 3.3.1.

Section 4
Deck Platings and Stiffeners

4.1. Deck platings

4.1.1. The thickness of the strength deck plating outside the line of hatchway openings is to be adequate to give the necessary hull section modulus and moment of inertia required by Ch.4.

4.1.2. The thickness 't' deck platings is not to be less than:

$t = (t_O + 0.02L)\ \sqrt{k} + t_c$ [mm]

where,

t_O = 5 for strength decks and forecastle decks

= 4.0 for other decks.

4.1.3 The strength deck plating outside the line of hatchways is also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

4.1.4 In way of ends of bridges, poops and forecastles. The thickness of the strength deck stringer strake is to be increased by 20 per cent over four frame spaces fore and also aft of the end bulkheads.

4.2 Deck stiffeners

4.2.1 The section modulus 'Z' of deck tongitudinals is not to be less than:

$$Z = \frac{spl^2}{12\sigma} + Z_c[cm^3]$$

Where

p = applicable design pressure [kN/m^2] as given in Sec.3.

σ = (215 – 145f_D.F_z)/k, max. 160/k [N/mm^2] for strength deck and deck's of long super-structures/deckhouses within 0.4L amidvessels.

= (225 - 145f_D.f_2)/k, max. 160/k [N/mm^2] for continuous decks below strength deck within 0.4L amidvessels.

= 160/k [N/mm^2] within 0.1L from ends and for short decks.

Elsewhere, σ may be obtained by linear interpolation.

The longitudinal are also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

4.2.2 The section modulus 'Z' of transverse, beams is not to be less than:

$$Z = \frac{spl^2}{1600} + Z[cm^3]$$

Where,

p = applicable design pressure [kN/m^2] as given in sec. 3.

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Section 5

Deck Girders and pillars

5.1 Girders

5.1.1 Deck girders and transverses are to be arranged in line with vertical members of scantlings sufficient to provide adequate support.

5.1.2 The scantlings of simple girders and transverses are to be in accordance with 5.1.3, The scantlings of a complex girder system are to be based on a direct stress analysis.

5.1.3 The section modulus 'Z' of deck girders is not to be less than:

$$Z = \frac{bpS^2.10^3}{m\sigma} + Z_c[cm^3]$$

where,

p = applicable design pressure [kN/m^2] as given in Sec.3.

m = 12 for continuous longitudinal girders with end attachments in accordance with Ch.3.

= 10 for other girders with end attachments in accordance with Ch.3.

σ = (190 – 145f_D,f_Z)/k max, 1607k [N/mm^2] (or continuous longitudinal girders within 0.4L amidvessels.

= 160/k [N/mm^2] for longitudinal girders within 0.1L from ends and for transverse gilders in general.

Elsewhere, 'σ' may be obtained by linear interpolation.

5.1.4 The net cross sectional area 'A' of the girder web at ends
is not to be less than:

$$A = 0.07\ S\ b\ p\ k\ + 001ht\ [cm^2]$$

where

h = girden height [mm]

5.1.5 The girders are to be satisfactorily stiffened against buckling in accordance with the requirements given in Ch.3, Sec.6. Tripping brackets are to be fitted in accordance with the requirements given In Ch.3, Sec. 4.4.4.

5.2 Cantilevers

5.2.1 The scantlings of cantilever beams and supporting frames will be specially considered.

5.3 Pillars

5.3.1 The scantlings of the pillars are to be in accordance with the requirements of Ch.3, Sec.6. Axial toad, if any, from pillars above is to be added to the toad from deck girders.

The minimum wall thickness 't' [mm], of the tubular pillars is not to be less than:

t = 4.5 + 0.015 d for d < 300 [mm]

= 0.03d for d > 300 [mm]

where,

d = diameter of the pillar [mm].

5.3.2 Pillars are to be filled in the same vertical line wherever possible, and arrangements are to be made to effectively distribute the load at the heads and heels. Where pillars support eccentric toads, they are to be strengthened for the additional bending moments imposed upon them. Doubling or insert plates are generally to be fitted al the head and heel of hollow pillars.

5.3.3 The pillars are to have a bearing fit and are to be attached to the head and heel plates by continuous welding.

5.3.4 Where the heels of hold pillars are not directly above the intersection of plate floors and girders, partial floors and intercostals girders are to be fitted as necessary to support the pillars. Lightening holes or manholes are not to be cut in the floors and girders below the heels of pillars.

5.3.5. Inside tanks, hollow pillars are not to be used and strengthening al the heads and heels of pillars is not to be obtained by means of doubling plates. Where hydrostatic pressure may give rise to tensile stresses in the pillars, their sectional area "A is not to be less than

$$A = 0.07.\ A_L.p\ [cm^2]$$

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Where,

P = design pressure as given in Sec. 3, causing the tensile stress in pillar.

A_t = toad area of deck [m^2], being supported by the pillar.

Section 6
Decks for Wheel Loading

6.1. General

6.1.1 Where it is proposed either to stow wheeled vehicles on the deck or to use wheeled vehicles for cargo handling, the requirements of this section are to be complied with in addition to those given in the preceding sections.

6.1.2 The requirements given below are based on the assumption that the considered element (Deck plating and/or stiffener) is subjected to one toad area only, and that the element is continuous over several evenly spaced supports. The requirements for other loads and/or boundary conditions will be specially considered.

A "load area" is the type print area of individual wheels; for closely spaced wheels it may be taken as the enveloped area of the wheel group.

6.1.3 The details of wheel loadings are to be forwarded by the vessel builder. These depth are to include the proposed arrangement and dimensions of tyre prints, axle and wheel spacing. maximum axle toad and tyre-pressure.

6.2. Wheel toads

6.2.1. The pressure 'p' from the wheels on deck is to be taken as :

$$P = \frac{12.5W}{n.a.b.} x10^6 [kN/m^2]$$

- for stowed vehicles in sailing conditions; and

$$p = \frac{W}{n.a.b.}\left(9.81 + \frac{3}{\sqrt{W}}\right)10^6 [kN/m^2]$$

- for cargo handling vehicles in harbour condition

Where,

W = maximum axle load, [t], For fork lift trucks, the total weight is to be taken as the axle load.

N = number of "load areas" per axie.

a = extent [mm], of the load area perpendicular to the stiffener (see fig. 6.2.1.)

b = extent [mm], of the load area perpendicular to the stiffener (see fig. 6.2.1.)

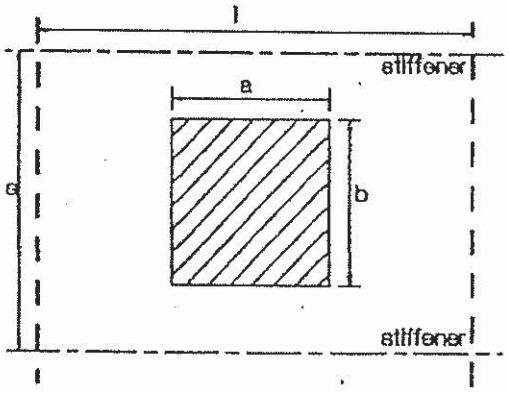


Fig. 6.2.1. Plate panel and load area dimensions

6.3. Deck plating

6.3.1. The thickness 't' of deck plating subjected to wheel loadings is not to be less than :

$$t = C_1 f_a \sqrt{\frac{c_2 bspk.10^{-3}}{m}} + t_c [mm]$$

Where,

f_a = (1.1.0.25 s/l) for s ≤ l, however need not be taken as greater than 1.0.

a,b,s,l = deck panel dimensions [mm] (see fig. 6.2.1.)

c_1 = 0.137 in general for sailing conditions.

= 0.127 in general for harbour conditions.

= As per table 6.3.1. for upper deck within 0.4 L amidvessels.

Table 6.3.1. : C_1 values for upper deck plating within 0.4 L amidvessels		
Framing system	Sailing Conditions	Harbour conditions
Tongitudinal	0.145	0.130
Transverse	0.180	0.145

For upper deck plating between 0.4L amidvessels and 0.1 L from ends, c_1 is to be varied linearly.

$$c_2 = 1.3 - \frac{4.2}{(a/s + 1.8^2)}$$

However, need not be taken as greater than 1.0

$$m = \frac{38}{(b/s)^2 - 4.7(b/s) + 6.5} \text{ for } b \leq s$$

6.4. Deck stiffeners

6.4.1. The section modulus 'Z' of deck beams and tongitudinals subjected to wheel loadings is not to be less than :

$$Z = \frac{c_3.a.b.l.p10^{-6}}{m\sigma} + Z_c[cm^3]$$

Where

C_3 = (1.15 – 0.25 b/s) for b ≤ s, however need not be taken as greater than 1.0.

$$m = \frac{r}{(a/l)^2 - 4.7a/l + 6.5}$$

r = 29 for continuous stiffeners supported at girders

= 38 when the continuous stiffeners can be considered as rigidly supported at girders against rotation.

σ = 160/k [N/mm^2] in general, for sailing conditions

= 180/k [N/mm^2] in general, for harbour conditions

= As per Table 6,4.1 for deck longitudinals within 0.4L amidvessels, but not exceeding the above general values.

For deck longitudinals between 0.4L amidvessels and 0.1L from ends, σ is to be varied linearly.

Table 6.4.1 – σ Values for longitudinals within 0.4L amidvessels	
Condition	[N/mm^2]
Sailing	(215 – 145 $f_D.f_Z$) / k
Harbour	(225 – 60 $f_D.f_Z$) / k

6.5 Deck girders

6.5.1. The scantlings of girders will be specially considered based on the most severe condition of moving or stowed vehicles. Also see sec. 6.1.3.

End Of Chapter

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Chapter 9

Bulkheads

Contents

Section	
1	General
2	Subdivision and Arrangement
3	Structure Arrangement and Details
4	Design Loads
5	Plating and Stiffeners
6	Girders

Section 1

General

1.1 Scope

1.1.1 The requirements of this chapter cover the arrangement and scanning of watertight and deep tank bulkheads.

1.1.2 The requirements also cover the non-watertight bulkheads and shaft tunnels.

1.2 Statutory requirements

1.2.1 Where applicable, the number and disposition of bulkheads are to be arranged to meet the requirements for subdivision, ftood ability and damage stability in accordance with the requirements of the local or National Statutory Authority of the country in which the vessel is registered.

1.3 Symbols

L, B, T. C_b, k as defined in Ch.1, Sec.2.

s = spacing of stiffeners [mm]

l = span of stiffeners [m]

b = spacing of girders [m|

S = span of girders [m]

t_c, Z_c = corrosion additions to thickness and section modulus respectively as given in Ch.3, Sec. 2.1

$$f_D = \frac{Z_R}{Z_D}$$

$$f_D = \frac{Z_R}{Z_D}$$

where,

Z_R = Rule midvessel section modulus [cm^3] as required by Ch.4.

Z_D, Z = Actual midvessel section moduli in [cm^3] provided at deck and bottom respectively calculated as per Ch.4.

$f_s = f_D$ for side shell area above neutral axis

$f_s = f_B$ for side shell area below neutral axis

Section 2

Subdivision and Arrangement

2.1 Number of bulkheads

2.1.1 The foltowing transverse watertight bulk heads are to be fitted in all vessels:

- A collision bulkhead;
- An aftpeak bulkhead;
- A bulkhead at each end of the machinery space.

In vessels with machinery aft, the aftpeak bulkhead may form the all boundary of the machinery space.

Additional transverse watertight bulkheads are to be fitted to ensure adequate transverse strength.

2.1.2 The ordinary transverse watertight bulk heads in the holds should be spaced at reasonably uniform intervals, Where non-uniform spacing is unavoidable and the length of a hold is unusually large, the transverse strength' of the vessel is to be maintained by providing additional web frames, increased framing etc.

2.3 Position and height of bulkheads

2.2.1 he collision bulkhead is to be fitted at a distance of 0.04L to 0.1L from the F.P. Any recesses or steps in collision bulkheads are to fall within the limits.

2.2.2 Consideration will however be given to proposals For the collision bulkhead positioned aft of the limits given in 2.2.1, provided that the application is accompanied by calculations showing that with the vessel fully loaded to maximum draught on even keel, flooding of space forward of the collision bulkhead will not result in any part of the main deck becoming submerged, nor result in any unacceptable toss of stability.

2.2.3. All vessels are to have an after peak bulkhead generally enctosing the sterntube and rudder trunk in a watertight compartment. In twin screw vessels where the bossing ends forward or the after peak bulkhead, the sterntubes are to be enctosed in suitable watertight spaces.

2.2.4 The watertight bulkheads are in general to extend to the uppermost continuous deck.

2.2.5 For passenger vessels the number and position of the bulkheads will normally be governed by the requirements of trim and stability in damaged condition given in Pt.5. Ch. 4.

2.3 Openings in watertight bulkheads and closing appliances

2.3.1 Doors, manholes, permanent access openings or ventilation duels are not to be cut in the collision bulkhead below the uppermost continuous deck.

2.3.2 Openings may be accepted in other watertight bulkheads provided the number and the size of openings is kept to a minimum compatible with the design and proper working of the vessel. Where penetrations of watertight bulkheads are, necessary for access, piping, ventilation, electrical cables, etc., arrangements "are to be made to maintain the watertight integrity. "In way of openings, suitable reinforcements are tobe provided to ensure that the strength is at least equal to that of the unpleased bulkhead,

2.4 Cofferdams

2.4.1 Cofferdams are to be provided between the following spaces to separate them from each other

- tanks for fuel oil or lubricating oil
- tanks for edible oil
- tanks for fresh water and feed water.

2.4.2 Tanks for lubricating oil are also to be separated by cofferdams from those carrying fuel oil. However, these cofferdams need not be fitted provided that the common boundaries have full penetration welds and line head of oil is generally not in excess of that in the adjacent lubricating oil tanks.

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Section 3

Structural Arrangement and Details

3.1 General

3.1.1 Oil fuel or oil carried as cargo in the deep tanks is to have a flash point or 60°C and above in closed cup test. Where tanks are intended for other liquid cargoes of a special nature the scantlings and arrangements will be considered in relation to the nature of the cargo.

3.1.2 The continuity of bulkhead longitudinals within a distance of 0.15D from the bottom or the strength deck is to be maintained in accordance with Ch.3, Sec.5.1,1.

3.1.3 Carlings, girders or ftoors are to be fitted betow the corrugated bulkheads at their supports. These supporting members are to be aligned to the face plate strips of the corrugations.

3.1 The weld connections are to comply with the requirements of Ch.16.

3.3 Wash bulkheads

3.2.1 A centreline wash bulkhead is to be fitted in peak spaces used as tanks. where the breadth of the lank exceeds 0.5B and also in deep lanks used for fuel oil extending from side to side.

3.2.2 The area of perforations is generally to be between 5% to 10% of the total area of bulkhead. The plating is to be suitably stiffened in way of the openings.

3.3 Supporting bulkheads

3.3.1 Bulkheads or parts there supporting deck structure are also to be designed as pillars. The permissible axial loads and buckling strength are to be calculated in accordance with Ch,3, Sec.6. In calculating sectional properties the width of attached plating is not to be taken in excess of 40 times the plate thickness. Also see Ch.8. Sec.5.1.1.

Section 4

Design Toads

4.1 Watertight bulkhead toads

4.1.1 The design pressure 'p', for ordinary watertight bulkheads is given by:

$$p = 10\ h\ [kN/m^2]$$

where,

h = the vertical distance [m] from the toadpoint to the uppermost continuous deck.

4.1.2 For bulkheads bounding cargo spaces intended to carry dry bulk cargoes, the design pressure 'p' is to be taken as the higher of that given in 4.1.1 and the pressure due to bulk cargo as given betow:

$p = 12.5\ C_p h_c$ $[kN/m^2]$

where,

α = angle made by the panel under consideration with the horizontal plane [deg.]

δ = angle of repose of cargo [deg.] not to be taken greater high the foltowing

- 20° for high bulk cargo (e.g. coal, grain)

- 25° for bulk cement cargo

- 35° for heavy bulk cargo (e.g. ore)

h_c = vertical distance [m], from the loadpoint to the mean horizontal plane corresponding to actual volume or cargo being considered

p = density of cargo $[t/m^3]$.

For vessels designed to carry heavy bulk cargoes which are also required to carry lighter cargoes, the pressure "p" based on maximum mass of cargo to be carried in the hold and filled up to the top of hatch coaming would also require to be considered.

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4.2 Tank bulkhead loads

4.2.1 The design pressure 'p' for tank bulkheads are normally to be taken as the greater of

$P = 12.5\ h_s\ [kN/m^2]$

$= 6.7 h_p\ [kN/m^2]$

$= 10\ (h_s + 1)\ [kN/m^2]$

where.

h_p = vertical distance [m] from the loadpoint to the top of the air pipe.

h_s = vertical distance (m) from the toadpoinl to (he top of the tank or hatchway.

For very large tanks which may be partially tilled, stoshing pressures may have to be considered.

4.2.2 The pressure 'p' on girder web panels in cargo tanks or ballast tanks is not to be taken as less than 20 $[kN/m^3]$.

4.3 Wash bulkheads toads

4.3.1 The design pressure 'p^1 for wash bulkheads may be taken as 50% of that for boundary bulkhead in the same tocation.

Section 5

Plating and stiffeners

5.1 Bulkhead plating

5.1.1 The thickness 't' of the bulkhead plating is not to be less than the minimum thickness given in 5.1.2 nor less than

$$t = 15.8s \sqrt{p / \sigma} \times 10^{-3} + t_c\ [mm]$$

Where,

P = applicable design pressure as given in sec. 4.

σ = as per table 5.1.1 for tongitudinal bulkheads.

= 160/k for transverse tank bulkheads and collision bulkhead;

= 220/k for ordinary transverse watertight bulkheads.

= 190/k for transverse dry bulk cargo bulkheads

5.1.2 The minimum thickness requirement of the bulkhead plating is given by

$t = (4.0 + 0.01L) + t_c\ [mm]$

5.1.3 The plate thickness of corrugated bulkheads is not to be less than that required according to 5.1.1 and 5.1.2. The spacing 's' to be used in the calculation of the plating thickness is to be taken as the greater of 'b' or 'c' where 'b' and 'c' are indicated in Fig. 5.1.3.

For built up corrugation bulkheads, where the thickness of the flange and web are different, the thickness of the wider plating is also not to be less than :

Table 5.1.1 : 'σ' values for tongitudinal bulk head plating

Region	Framing system	At neutral axis	At strength deck or at bottom	Between neutral axis and strength deck or bottom.
0.4 L amidvessels	Vertical	140/ k	(175 – 130 f_s) /k max 120 / k	To be obtained by linear interpolation.
	Longitudinal	160 / k	(185 – 105 f_s) / k max 120 / k	To be obtained by linear interpolation.
Within 0.1L from ends	160 / k	160 / k	160 / k	
Elsewhere	To be obtained by linear interpolation between allowable values at regions specified above.			

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$$r = \sqrt{\frac{S^2.P}{2\sigma} - (t_a - t_c)^2 + t_c [mm]}$$

where,

t_a = thickness of adjacent plating [mm] not to be taken greater than t.

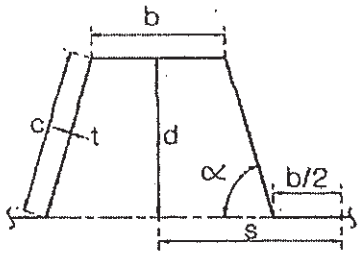


Fig.5.1.3 : Corrugated bulkhead

5.1.4 The longitudinal bulkhead plating with 0.1D from bottom or strength deck is also to comply with the requirements of buckling strength given in Ch.3, Sec.6.

5.1.5 In way *of* stern tubes, doubling plate of same thickness as the corresponding strake is to be fitted, or the strake thickness is to be increased by at least 60 percent.

5.2 Longitudinals

5.2.1 The section modulus of continuous tongitudinal stiffeners and corrugations is not to be less than:

$$z = \frac{spl^2}{m\sigma} + Z_c [cm^3]$$

where,

p = applicable design pressure given in Sec.4.

m= 12

σ = (215 - 145 f_s)/k. max. 160/k [N/mm^2] at deck/bottom level within 0.4L amidvessels.

= 160/k at neutral axis within 0.4L amidvessels

= 160/k for longitudinals within 0.1 L from ends.

For longitudinals between the regions specified above a may obtained by linear interpolation.

5.2.2 The thickness of the web and flange is not to be less than the minimum plating thickness requirements stipulated in 5.1.2.

5.2.3 The rule section modulus of a corrugated bulkhead element is to be obtained according to 5.2.1 taking's as shown in Fig. 5.1.3.

5.2.4 The actual section modulus of a corrugated bulkhead element may be obtained in accordance with the foltowing:

$$Z_{actual} = \frac{t.d(b + c/3)}{2000} [cm^3]$$

where, t.d.b and c [mm], are as shown in Fig. 5.1.3.

5.3 Vertical and transverse stiffeners on tank bulkheads, collision bulkheads, dry bulk cargo bulkheads and wash bulkheads.

5.3.1 The section modulus of bulkhead stiffeners is not to be less than:

$$z = \frac{spl^2}{m\sigma} + Z_c [cm^3]$$

where,
p = applicable design pressure [kN/m2] given in Sec.4,

m = 10 for transverse stiffeners and vertical stiffeners which may be considered fixed at both ends

= 7.5 for vertical stiffeners simply supported at one or both ends

= 10 for horizontal corrugation fixed al ends

= 13 for fixed upper end of vertical corrugation

= 20 for non-fixed upper end of vertical corrugation

= 10 for lower end of vertical corrugation

σ = 160/k for tank bulkhead and collision bulkhead

= 210/k for dry bulk cargo bulkheads.

5.3.2 The thickness of web and flange is to be as required in 5.1.2.

5.3.3. Actual section modulus of corrugations is to be obtained as per 5.2.4.

5.3.4 Brackets are normally to be fitted at the ends of non-continuous stiffeners. Where stiffeners are sniped at the ends. The thickens of the plating supported by the stiffener is not to be less than:

$t = 1.25\ \sqrt{(l-0.0005s)}\ s.p.k) + t_c$ [mm]

5.4 Vertical and transverse stiffeners on ordinary watertight bulkheads

5.4.1 The section modulus of bulkhead stiffeners is not be less than

$$Z = \frac{spl^2}{m\sigma}$$

Where

p = applicable design pressure given in Sec.4.

m = 16 for stiffeners fixed at both ends

= 12 for stiffeners fixed at one end (lower end in case of vertical stiffeners) and simply supported at the other end.

= 8 for stiffeners simply supported al both ends.

σ = 220/k

5.4.2 The thickness of web and flange is to be as required in 5.1.2. For sniped ends, the thickness of bulkhead plating is to be as per 5.3.4.

Actual section modulus of corrugations is to be obtained as per 5.2.4.

Section 6

Girders

6.1 General

6.1.1 Bulkhead stringers and deep transverses are to be arranged in line with other primary supporting structure to the adjoining deck, side shell and bottom so as to facilitate the formation of continuous ring structures. Otherwise equivalent scarphing arrangement is to be provided.

6.1.2 The section modulus requirement 'Z' of simple gilders is not to be less than:

$$Z = \frac{b.p.S^2 x10^{-3}}{m\sigma} + Z_c[cm^3]$$

where,
m = 12 for continuous longitudinal girders with end attachments. in accordance with Ch.3, Sec. 5.

= 10 for other girders with end attachments in accordance with Ch,3, Sec.5.

σ = (190 – 45f_s) max 160/k [N/mm^2], for continuous longitudinal girders within 0.4 L amidvessels

= 160/k [N/mm^2] for continuous longitudinal girders with 0.1 L from ends and for vertical or transverse girders on tank and collision bulkheads. -

= 210/k for vertical and transverse girders, in general.

For continuous longitudinal girders between the regions specified above, 'σ' may be obtained by linear interpolation.

6.1.3 The depth of the girders should not be less than 2.5 times the depth of the cutout (if any) for the passage of continuous stiffeners. The net cross sectional area 'A' of the girder web at ends is not to be less than

$A = CkSbp + 0.01\ d_w t_c$ [cm^2]

where,

C = 0.060 for tank and collision bulkheads

C = 0.045 for other watertight bulkheads

d_W = depth of web [mm],

However. for lower end of vertical girders value of C to be taken as 0.08 and 0.06 respectively.

6.1.4 Tripping brackets are to be fitted in accordance with the requirements given in Ch,3, Sec.4.

End of Chapter

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Chapter 10

Superstructure, Deckhouses and Bulwarks

Contents

Section	
1	General
2	Scanting
3	Structural Arrangement
4	Bulwarks and Guard Rails

Section 1

General

1.1 Scope

1.1.1 The scantlings of the bulwarks and of the exposed bulkheads of the superstructures and deckhouses are to comply with the requirements of this chapter. The scantlings of the decks of the superstructures and deckhouses are to be in accordance with the requirements of Ch.8. and those of the sides of the superstructures are to be in accordance with the requirements of Ch.7.

1.2 Definitions

1.2.1 For definitions of the terms 'Superstructure' and 'Deckhouse' refer to Ch.1

1.2.2 The lowest tier is normally the tier that is directly situated on the deck to which the rule depth 'D' is measured or on superstructures which are less than 1.8 [m] in height.

1.3 Symbols

1.3.1 L and k as defined in Ch.1. Sec.2.

s = spacing of stiffened [mm],

l = span of stiffener [m].

Section 2

Scantling

2.1 End bulkheads and exposed sides of Deckhouses

2.1.1. The thickness 't' of steel plating of the fronts, sides and aft ends of deckhouses and the front and aft ends of superstructures is not to be less than :

$t = (COM\ s + 2.5)\ \sqrt{k}$ - for towest tier

$= (0.004\ s + 1.5)\ \sqrt{k}$ - for upper tiers

2.1.2 The section modulus Z of stiffeners on fronts, sides and aft ends of deck houses and the front and aft ends of superstructures is not to be less than:

$Z = 3.6\ sl^2 \times 10^{-3}.\ k\ [cm^3]$ - for uppermost tier

l is not to be taken less than 2.0 [m].

When a multiple tier erection is filled, the section modulus of stiffeners on lower tiers is to be increased at, the rate or 15% per tier fitted above the tier under consideration.

2.1.3 The upper end of stiffeners on all erections ate to be bracketed to the deck beams or longitudinal and the lower end is to be welded to the deck below.

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2.2 Protected machinery casings
2.2.1 The thickness of plating is not to be less than:

$t = (0.003\ S + 1.5)\ \sqrt{k}$ [mm]

2.2.2 The section modulus 'Z' of stiffeners is not to be less than:

$Z = 0.003\ sl^2\ \sqrt{k}$ [cm^3]

Where, l is not be taken less than 2.0 [m]

2.2.3. Casings supporting one or more decks above are to be adequately strengthened.

Section 3

Structural Arrangement and Details

3.1 Structural continuity

3.1.1 Adequate transverse strength is to be provided to the deckhouses and superstructures by means of transverse bulkheads, girders and web frames.

The front and the after end bulkheads of large superstructures and deckhouses are to be effectively supported below by a transverse bulkhead or by a combination or partial bulkheads, girders and pillars. Similarly, the exposed sides of various tiers of erections are to be supported by bulkheads, girders or carlings betow.

3.1.3 All openings cut on the sides are to be. substantially framed and have well rounded corners.

3.1.4 At the ends of superstructures, which have no set-in from the vessels' side. The side plating is to extend beyond the ends of the superstructure, and is to be gradually reduced in height down to the sheer strake. The extended plating is to be adequately stiffened, particularly at its upper edge.

Section 4

Bulwarks and Guard Rails

4.1 General requirements

4.1.1 Bulwarks or guard rails are to be provided on the exposed parts of the freeboard and superstructure decks and also on all upper deck spaces normally accessible to crew and passengers. The height of the bulwarks or guard rails measured above the sheathing, if any, should not be less than the Following:

For all passenger vessels :

- For all Zones : 900 [mm]

For all other vessel

- For Zone 1 : 900 [mm)
- For Zone 2 : 600 (mm)
- For Zone 3 -. 300 [mm)

Consideration will be given to cases where this height would interfere with the normal operation of the vessel.

4.1.2 Bulwarks or guard rails as required by

4.1.1 may be dispensed with in way of hatch side coamings fitted with suitable handrails.

4.1.3 Where bulwarks on the weather portion of freeboard or superstructure decks form wells, provision is to be made for rapidly freeing the decks of water.

4.2 Bulwark construction

4.2.1. Bulwarks are to be stiffened at the upper edge by a strong rail section and supported by stays from the deck, spaced not more than 2.0 [m] apart. Where bulwarks are cut in way of a gangway or other openings, stays of increased strength are to be filled at the ends of the openings.

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Bulwark slays are to be supported by, or are to be in line with, suitable underdeck stiffening, which is to be connected by double continuous fillet welds in way of the bulwark stay connection.

Bulwarks are to be adequately strengthened in way of the eye plates for cargo gear. In way of the mooring pipes, the plating is to be increased in thickness and also adequately stiffened.

4.2.2 Bulwarks are generally not to be welded to the top of the sheer strake within 0.6L amidvessels and so arranged as to ensure their freedom from main structural stresses.

4.3 Bulwark scantlings

4.3.1 The thickness of the bulwark plating is not to be less than 4.0 [mm].

4.3.2 The section modulus 'Z' at the bottom of the bulwark stay is not to be less than :

$Z = (33 + 0.44L)h^2s \quad [cm^3]$

where,

h = height of the bulwark [m].

s = spacing of bulwark slays [m].

In the calculation of section modulus 'Z' only the material connected to the deck is to be included. The contribution from bulwark plating and/or slay flange may be considered depending upon the construction details.

4.4 Guard rails

4.4.1 The guard rails are to be supported by stanchions fitted not more than 3.0 [m] apart;

At least every third stanchion is to be supported by a bracket or stay.

4.4.2 Lengths of chain may be accepted in lieu of guard rails if they are fitted between two fixed stanchions and/or bulwarks.

4.4.3. The dear opening betow the lowest course of the guard rails is not to exceed 230 [mm].

End of Chapter

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Chapter 11

Opening and Ctosing Appliances, Ventilators, Air Pipes and Discharges

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1	General
2	Hatch Coamings
3	Hatch Covers
4	Miscellaneous Openings
5	Ventilators
6	Air and Sounding Pipes
7	Scuppers and sanitary Discharges

Section 1

General

1.1 Scope

1.1.1 This Chapter applies to all vessel types in general. Additional requirements pertaining to special vessel types are given in Pt.5.

1.1.2 The requirements of National or ikocal authorities should also be applied, where relevant.

1.1.3. For the purpose of this section weather tightness of hatch covers means that ctosing appliances do not permit entry of water into the vessel which may prejudice the safely of the vessel under the navigational conditions envisaged.

Section 2

Hatch Coamings

2.1 Coaming heights

2.1.1 The height of cargo hatch coamings above deck is to be not less than 300 [mm] for Zones 1 and 2 and 200 (mm) for Zone 3.

In addition, the distance of coaming top above toad water line is to be not less than given in Table 2.1.1.

2.2 Hatch coaming construction

2.2.1 Hatchside coamings are to extend-to the lower edge of the deck beams. Side coamings not forming a part of continuous girders, are to extend two frame spaces beyond the hatch ends below the deck.

Table 2.1.1 : Height of hatch coamings [mm]

	Zone 1	Zone 2	Zone 3
With weathertight hatch cover [1)]	1000	600	300
Without weather tight	1700	1000	500

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Hat cover			
Note 1) see 1.1.3.			

2.2.2 Hatch end coamings when not in line with the deck transverses are to extend below the deck, at least three longitudinal frame spaces beyond the side coaming.

2.2.3 Continuous hatchway coamings or coamings forming an effective part of the deck girder system are to be made from steel of same tensile strength as that of the deck plating.

2.2.4 If the junction of hatch coamings forms a sharp comer, the side and end coamings are to be extended in the form of tapered brackets in longitudinal and transverse directions respectively.

2.2.5 Extension brackets or rails arranged approximately in line with the cargo hatch side coamings and intended for the stowage of steel hatch covers are not to be welded to deckhouse, masthouse or to each other unless they form a part of the longitudinal strength members.

2.3 Coaming scantlings

2.3.1 The scantlings of hatch coaming plating and stiffened are to be not less than that required for the adjacent deck.

2.3.2 Hatchway coamings 300 [mm] and above are to be stiffened in their upper edge.

Coaming stays are to be fitted at spacing of not more than 3.0 [m]. The stays are to end on stiffened plating. The coamings are to be satisfactorily stiffened against buckling.

Section 3

Hatch Covers

3.1 General

3.1.1 Hatch covers, where fitted, may be of the types a) to e) as described betow.

Hatch Cover Types :

'a' : Steel plated cargo hatch covers stiffened by webs or stiffeners and secured by clamping devices. Weathertightness is to be ensured by means of gaskets. Hatch covers used for holds containing liquid cargoes are also included in this category.

'b' : Steel plated pontoon type cargo hatch covers with internal webs and stiffeners extending over the full width of the hatchway. Weather- lightness is to be achieved by tarpaulins.

'c' : Wood or steel hatch covers used in conjunction with the portable beams. Weather tightness to be obtained by tarpaulins.

'd' : Access hatch covers for cargo oil tanks and adjacent spaces. The hatch covers are to be of steel and gasketed.

'e' : Access hatch covers other than 'd'. The covers are to be of steel or wood and weathertight. Escape hatches are to be operable from both sides.

3.1.2 Materials for steel hatch covers are to satisfy the requirements of hull structural steel. Where other approved materials are used, equivalent strength and stiffness are to be provided.

3.2 Design loads

3.2.1 The design weather load on the weather deck hatchcovers is to be taken as:

$p = H_1 - 10\ h_0$ [kN/m^2], minimum 3 [kN/m^2)

where,

h_o = Vertical distance [m] from the maximum load waterline to the top of hatch covers.

H_1 = as given in Table 3.2.1.

Table 3.2.1

Zone	H_1
1	9 for L ≤ 20 [m] 9 + 0.15 (L -20) for 20 < 1 < 60 15 for L ≥ 60 m
2	0
3	5

3.2.2. For hatch covers subjected to carge toading the design pressure is to be taken as :

$$p = 12.5\ q\ [kN / m^2]$$

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where,

q = specified cargo loading [t/m2] on the hatch cover.

3.2.3 The design internal pressure on hatch covers above tanks are to be determined as per the design pressure on deck structure given in Ch.8.

3.3 Hatchcover plating

3.3.1 The thickness of steel hatch cover plating is not to be less than:

$$t = 15.8S\sqrt{P/\sigma}x10^{-3} + t_c[mm], or$$

3 [mm] whichever is greater

where.

p = design pressure as per 3.2

= 160/k [N/mm^2]

Hatch covers of G.I. sheet and other material will be specially considered.

3.3.2 The plating of hatch covers acting as compression flanges for the hatch cover stiffeners and girders is to be effectively stiffened against buckling.

In the middle part of the simply supported span the critical buckling stress s_c is to be such that

$$\sigma_c \geq 1.15\sigma_b[N/mm^2]$$

where,

σ_b = calculated bending stress in the compression flange corresponding to the design toad as given in 3.2.

σ_c = the critical buckling strees as per Ch.3, Sec.6.

3.4 Stiffeners and girders

3.4.1 The section modulus of the stiffeners and girders is not to be less than the foltowing :

$$Z = \frac{6.25spl^2}{m}[cm^2]$$

Where,

l = the member span between effective supports [m].

S = the member spacing [m]

m = 8 for members simply supported at ends

= 12 for members which can be considered as fixed at both ends.

The moment of inertia of stiffeners and girders is not to be less than:

$$I = 2.1\ Zl\ [cm^4]$$

For other materials the requirement will be specially considered.

3.4.2 For covers above cargo and ballast tanks, fillet welds on lank side are to be double continuous.

3.5 Hatch cover edges

3.5.1. The cover edges are to be adequately stiffened to withstand the forces imposed upon them during opening and ctosing of the hatches.

3.6 Wooden hatch covers

3.6.1 Wooden hatch cover plants are to have a finished thickness not less than 1/24th of the unsupported span, with a minimum of 20 [mm]. The planks of wood covers are to be connected at their underside by cross planks spaced not more than 1.5 [m].

3.6.2 The ends of all wooden hatch covers are to be protected by encircling with galvanized steel bands.

3.7 Portable hatch beams

3.7.1 The section modulus and the moment of inertia of the portable hatch beams stiffened at their upper and tower edges by continuous flat bars are to satisfy the requirements of 3.4.

3.7.2 Carriers or sockets, or other suitable arrangements are to be provided as means of the efficient fitting and securing of portable hatch beams.

3.7.3. Sliding hatch beams are to be provided with an efficient device for tocking them in their correct fore and aft positions when the hatchway is ctosed.

3.8.3 Direct calculations

3.8.1. Hatchcovers of special construction and arrangement e.g. covers designed and constructed as a grillage, coves supported atong more than two opposite edges and covers supporting other covers, may require submission of direct strength calculation taking

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into account the arrangement of stiffeners and the supporting members.

3.9 Hatch cover securing arrangement

3.9.1 The gaskets and the securing arrangements are to be designed for the expected relative movement between cover and coaming or special devices are to be fitted to restrict such movement.

3.9.2 Securing arrangements together with suitable gasketting material are to ensure weathertightness of the covers to the satisfaction of the surveyors.

3.9.3 The gasket material is to be of satisfactory air, seawater and if necessary oil resistant quality. It is to be effectively secured along the, edges of the cover in a manner as to ensure that the forces from the hatch covers or cargo stowed on top of the hatchcovers are transferred to the coaming or to the deck by direct contact without the load coaming on the gaskets. The sealing is to be achieved by relatively soft packing. The hatch coaming or steel parts oh the adjacent covers in contact with the packing are to be well rounded where necessary.

A metallic contact is to be kept between the hatchcover and the hull to effect electrical earthing.

3.9.4 Where tarpaulins are fitted to make hatch covers weathertight. They are to be free from jute, and are to be waterproof and of ample strength. At least two layers of tarpaulins are to be provided and these are to be secured by battens and wedges or equivalent arrangements.

Section 4

Miscellaneous Openings

4.1 Manholes

4.1.1 Manholes on the weather decks are to be closed by substantial covers capable of closing them watertight.

4.2 Companionways, doors and accesses on weather decks

4.2.1 Companionways on exposed deck are to be equivalent in strength and weathertightness to a deckhouse in the same portion. The height of the doorway sills above deck is not to be less than 100 [mm] for Zone 3 and 150 [mm] for Zone 1 & 2.

For doorways directly leading to engine room the sill height above deck is to be not less than 400 [mm].

In addition the sill heights above load waterline should not be less than the values mentioned below.

Zone 1	1000 [mm]
Zone 2	600 [mm]
Zone 3	300 [mm]

4.3 Openings on engine casing

4.3.1 Machinery space openings are to have efficient closing appliances. The openings and coamings for fiddley, funnel and machinery space ventilators in the casing in those positions are to be provided with strong covers of steel or other equivalent material permanently attached in their proper positions and capable of being secured weathertight.

4.3.2 Skylights are to be of substantial construction and secured firmly to the deck. For skylights the coaming height is not to be less than that required for the hatch coamings. Efficient means are to be provided for closing and securing the hinged scuttles, if any. The thickness of glasses in fixed or opening skylights is to be appropriate to their position and size as required for side scuttles. Glasses are to be protected against mechanical damage, and are to be fitted with deadlights or storm covers" permanently attached.

4.3.3 Side scuttles in the engine casings are to be provided with fireproof glass.

4.4 Windows and side scuttles

4.4.1 Side scuttles and windows are to be made and tested according to Standards. The glass thickness of side scuttles betow main deck is to be not less than 8.0 (mm].

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The glass thickness of windows above deck is not to be less than :

$$t = \frac{w}{70} \text{ [mm], minimum 6.0 [mm]}$$

where,
w = the height or the width of the window, whichever is smaller, [mm],

4.4.2. Side scuttles in the shell below main deck are to be non opening type with deadlights and the lower edge of glass is to be at least 500 [mm] above the load waterline in any condition of list or trim. Further, the scuttles are to be adequately protected against damage by direct contact.

4.4.3 Side scuttles and windows above deck may be fitted without deadlight/portable covers provided the height of tower edge of glass above waterline is not less than specified in Table 4.4.3.

Table 4.4.3. : Height of side scuttles [mm]

Zone	h_t [mm]
1	1700
2	1000
3	50

Section 5

Ventilators

5.1 General

5.1.1 The scantlings of exposed ventilator coamings are to be equivalent to the scannings of deckhouses in the same' position, in cargo spaces and other areas where mechanical damage is likely, the ventilator trunks are to be well protected.

5.2 Coaming heights

5.2.1 Ventilators on exposed decks are to have the tower edge of openings at a height of not less than 300 [mm]above deck,

In addition the heights of lower edge of openings above waterline are to be not less than specified in Table 5.2.1.

Table 5.2.1. : Ventilator coaming Heights [mm]

	With closing appliances	Without closing appliances
Zone 1	1000	1700
Zone 2	600	1000
Zone 3	300	500

5.3. Closing appliances

5.3.1. Ventilator openings are to be fitted with efficient weathertight ctosing appliances if applicable as specified in Table 5.2.1.

Section 6

Air and Sounding Pipes

6.1. General

6.1.1 Air and sounding pipes are to comply with the requirements of Pt.4, Ch.2.

6.1.2 Striking plates of suitable thickness, or their equivalent, are to be fitted under all sounding pipes.

6.1.3. Air and sounding pipes leading through cargo containment areas or other spaces where mechanical damage is likely to occur, are to be well protected.

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6.2 Height of air pipes

6.2.1 The height of air pipes from the upper surface of decks exposed to the weather, to the point from where water may have access below, is not normally to be less than 300 [mm].

The heights above load waterline of air pipes with and without closing appliances are not to be less than as specified in Table 5.2.1 for ventilators

6.2.2 Lower heights may be approved in cases where these are essential for the working of the Vessel provided closing appliances are of an approved automatic type.

6.3. Closing appliances

6.3.1. Permanently attached closing appliances to prevent free entry of water are to be fitted to all sounding pipes and for air pipes where required as per 6.2.1.

6.3.2. Where the closing appliances are not of an automatic type provision is to be made for relieving vacuum when the tanks are being pumped out.

Section 7

Scuppers and Sanitary Discharges

7.1 General

7.1.1 Scuppers sufficient in number and size to provide effective drainage are to be fitted in all decks.

7.1.2 Scuppers draining weather decks and spaces within superstructures or deckhouses not fitted with efficient weathertight doors are to be led overboard.

7.1.3 Scuppers and discharges which drain spaces below the main deck, or spaces within intact superstructures or deckhouses on the main deck fitted with efficient weather tight doors, may be led to the bilges in the case of scuppers, or to suitable sanitary tanks in the case of sanitary discharges. Alternatively they may be led overboard provided that the spaces drained are above the load waterline, and the pipes are fitted with efficient and accessible means of preventing water from passing inboard as required in 7.2.1.

7.1.4 Scuppers and discharge pipes should not normally pass through fuel oil or cargo oil tanks, Where scuppers and discharge pipes pass, un-avoidably, through fuel oil or cargo oil tanks, and are led through the shell within the tanks, the thickness of the piping should be at least the same thickness as Rule shell plating in way, derived from the appropriate chapters.

Piping within tanks is to be tested in accordance with Pt.4, Ch.2 and Ch.3.

7.1.5 All piping is to be adequately supported

7.2 Closing appliances

7.2.1 Where the inboard end of scuppers and discharges are below main deck, normally a screw down non-return value in an accessible location is to be fitted to prevent water from passing inboard.

Where the inboard end is above the main deck, a non-return valve is to be fitted at the shell, if the height of the inboard end above waterline is lower than the foltowing:

Zone 1 - 1000 [mm)

Zone 2 - 600 [mm]

Zone 3 - 300 [mm]

7.3 Materials for valves, fittings and pipes

7.3.1 All shell fillings and valves required by 7.2 are to be of steel, bronze or other approved ductile material; ordinary cast iron or similar material is not acceptable.

7.3.2. All these items, if made of steel or other approved malarial with low corrosion resistance are to be suitably projected against wastage.

7.3.3. The lengths of pipe attached to the shell fittings, elbow pieces or valves are to be of galvanized steel or other equivalent approved material.

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Section 12

Rudders

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Section 1

General

1.1 Scope

1.1.1 The requirements of this Chapter apply to arrangement and scantlings of normal streamlined or plate rudders and their supporting structure. Rudders fitted with special features e.g. special profiles fins, flaps, steering propellers etc. to increase the lift force will be specially considered.

1.2 Material

1.2.1 All materials used in the construction of the rudder are to be tested and approved in accordance with Pt,2. 'Materials' of the Rules and Regulations for the Construction and Classification Steel Vessels (Main Rules).

Material grades for plates and sections for the rudder blade are to be selected as per Pt.3. Ch.2, Sec.1.3.

1.2.3 Bearing materials for bushings are to be stainless steel, "bronze, while metal, synthetic material or lignum vitae. If stainless steel is proposed to be used for liners or bushes for the rudder stocks and pintles, the chemical composition "is to be submitted for approval.

Hardness of the material of the bushing is to be at least 65 Brinell lower than that of the liner or the rudder stock or pintle.

Synthetic bush materials are to be of approved type. Arrangement is to be provided for adequate supply of sea-water to these bearings. 1.3 Testing

1.3.1 Bodies of the rudders are to be tested in accordance with the requirements given in Ch.15.

Section 2

Arrangement and Details

2.1 General

2.1.1 Various types of rudder arrangement are shown in Fig. 2.1.1; other combinations of Couplings and bearings may, however, be proposed.

2.1.2 Effective means are to be provided for supporting the weight of the rudder. Where the

Support is provided by a carrier bearing attached to the rudder head, the structure in way of the bearing is to be adequately strengthened. The

Plating under all rudder head bearing or rudder cariers is to be increased in thickness.

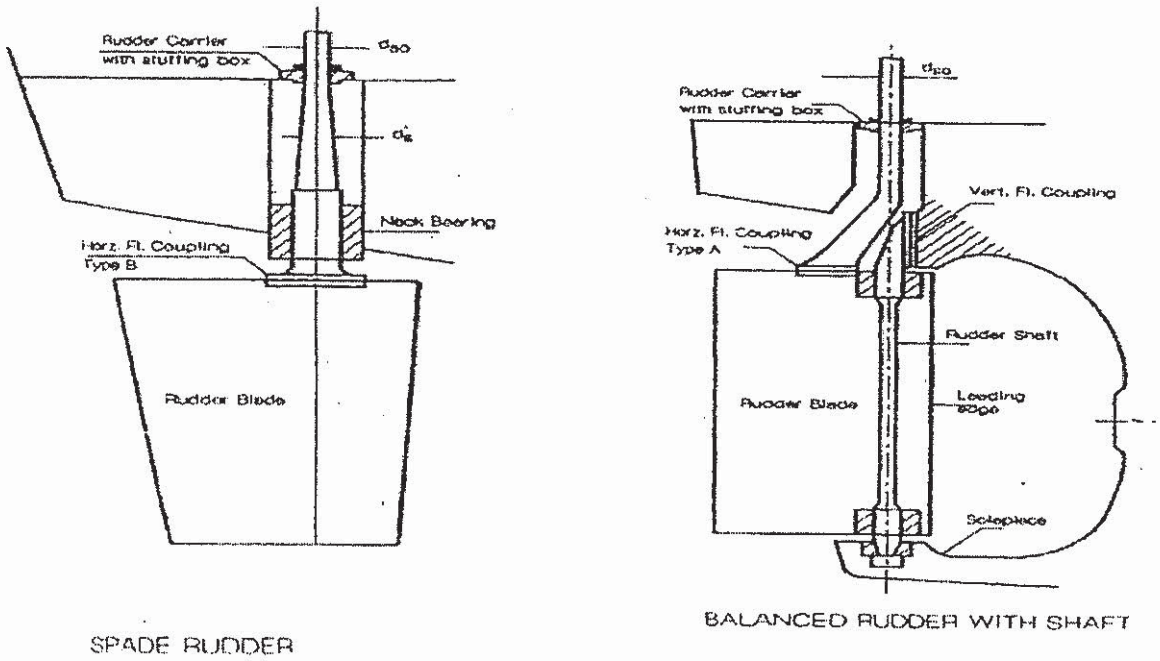


Fig. 2.1.1. Types of rudders

2.1.3 All rudder bearings are to be accessible for measuring wear without lifting or unvesselping the rudder.

Satisfactory arrangement is to be provided to prevent water from entering the steering gear compartment and lubricant from being washed away from the rudder carrier. A seal or stuffing box is to be filled above the deepest load water line for this purpose unless the top of the rudder trunk (steering gear fiat) is more than 300 [mm] above the deepest waterline in way trimmed condition. When the rudder carrier is fitted betow the deepest toad water line, two separate seals or stuffing boxes are to be provided.

2.1.5 Suitable arrangement is to be provided to prevent the rudder from lifting and accidental unvesselping.

Section 3
Design Toans

3.1. Rudder Force

3.1. The rudder force, upon which rudder scanthings are to be based is to be determined from the foltowing formula :

$$F_1 = 132 \cdot K_1 \cdot K_2 \cdot K_3 \cdot A \cdot V^2 \text{ [N]}$$

Where,

F_r = rudder force [N]

A = area of rudder blade [m^2]

V = maximum achievable vessel speed (knots) in the lightest operating condition in which the rudder is fully immersed. V is not to be taken as less than 6 knots.

For astern condition, the maximum astern speed is to be used, but in no case less than:

$V_{astern} = 0.5\ V$

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$K_1 = (\lambda + 2) / 3$; with y not to be taken greater than 2.

$\lambda = b^2/A_t$; where b is the mean height of the rudder area [m] and A_t, (he sum or rudder blade area and area of rudder post or rudder horn, if any, within the height b [m^2]

Mean breadth C [m] and mean height b [m] of rudder are calculated according to the co-ordinate system in Fig. 3.1.1.

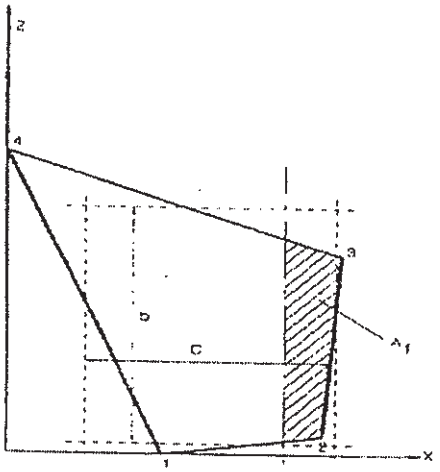


Fig.3.1.1 : Rudder dimensions

K_2 = Factor depending on the kind of rudder profile as per Table 3.1.1.

K_3 = 0.80 for rudders outside the propeller jet

= 1.15 for rudders behind a fixed propeller nozzle

= 1.0 otherwise.

Table 3.1.1.

Profile Type	K_2	
	Ahead	Astern
NACA : 00 Gottingen Profiles	1.1	0.80
Hollow Profiles	1.35	0.90
Flat side profiles	1.1	0.90

3.2. Rudder torque

3.2.1. The rudder torque on regular shaped ruddes in both the ahead and astern conditions to travel is to be calculated as follows :

$$Q_r = F_r \cdot r \text{ [N-m]};$$

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where,
$r = x_c f$ [m] but not to be taken less than 0.1C,

X_c = the distance of the point of application of the design force Fr from the leading edge

= 0.33 C in ahead condition

= 0.66 C in astern condition.

C = Mean breadth of rudder area [m] See Fig. 3.1.1.

$f = C. A_t/A$ where A_t is the portion of the rudder blade area situated ahead of the centre line of the rudder stock.

3.2.2 In case of rudder blades with stepped contours the total rudder torque is to. be obtained as foltows:

$$Q_r = \sum Q_n \text{ for } i = 1,2,3,....$$

where,

$Q_n = F_n\ r_n$ individual torque component from each part At of the total rudder area.

$F_n = F_n\ A/A$

$r_i = x_{ci}\ f_r$: but not to be taken less than 0.1 C_i

X_{ci}, f_i and C_i are to be taken as x_c, f and C as in 3.2.1 for each discrete part except that for those rudder parts immediately aft of rudder horn X_{ci} is to be taken as $0.25C_i$ and $0.55C_i$ in ahead and astern conditions respectively.

3.3 Bending moments, shear forces and reactions.

3.3.1. The bending moment (BM) and shear force (SF) distributions atong the entire height of the rudder blade and rudder stock as well as the bearing reactions (R) may be obtained by direct calculation. The rudder is to be assumed as simply supported at the centres of the upper bearing and the neck bearing. In case of rudders supported by the sole piece or rudder horn the flexibility of the sole piece or rudder horn, and rudder and rudder stock is to be taken into consideration.

3.3.2, For common types of rudders, the following approximate values may be used:

For balanced rudders with heel support :-

$$BM = \frac{F_r.b}{8}[N-m]$$

at mid – height of the rudder blade :

$$= \frac{F_l.b}{7}[N-m]$$

at centre of neck bearing
$SF = 0.6\ F_r$ [N]

at top and bottom ends of the rudder blade :
$= 0.1\ F_r$ [N]

at mid-height of the rudder blade.
$R = 0.6\ F_r$ [N]

at the heel pintle bearing;
$= 0.7\ F_r$ [N]

at the neck bearing / stern pintle;
$= 0.1\ F_r$ [N]

at the upper bearing.

- For spade rudders :

$$BM = \frac{F_r.A_1.b_1}{A}[N-m]$$

at any cross section below and including the neck bearing.

$$SF = \frac{F_r.A_1}{A}[N]$$

at any cross section up to the centre of the neck bearing.

$$R = \frac{b_2+b_3}{b_3}.F_r[N-m]$$

at the neck bearing.

$$= \frac{b_2}{b.}F.[N]$$

at upper bearing

where,

A_1 = rudder area below the cross section under consideration.

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b_1 = vertical distance from the centroid of A_1 to the cross section;
b_2 = vertical distance from the centroid of rudder area A to the centre of the neck bearing, and
b_3 = vertical distance between the centres of the upper and lower bearings.

3.3.3 At upper bearings the bending moments are to be taken as zero and between the upper bearing and the neck bearing the bending moments may be varied linearly.

Section 4

Rudders Blades

4.1 Construction details

4.1.1 Care is to be taken to avoid notch effects and to maintain continuity of strength around cut-outs and openings in the side plating. The plating thickness is to be increased suitably and comers are to be well rounded and ground smooth.

4.1.2 Side plating and vertical webs transmitting the torque are to be welded to the coupling flange by full penetration welds.

4.1.3 In general, welds between plates and heavy pieces are to be made as full penetration welds. Where back welding is not practicable welding is to be performed against backing bar or equivalent.

4.1.4 Webs are to be connected to the side plating in accordance with Ch.14. Where fillet welding is not practicable, side plating is to be connected by means of stot welding to flat bars welded to the webs. Normally stots of length 75 [mm], breadth at least twice the side plating thickness and spaced 200 [mm] centre to centre will be accepted. The ends of the stots are to be well rounded. In areas subjected to large bending stresses, horizontal stots may require to be replaced by continuous weld.

4.1.5 Arrangement is to be provided to drain the rudders completely. Drain plugs are to be provided with efficient packing.

4.1.6 Internal surfaces of rudders are to be efficiently coated for corrosion resistance after completion of fabrication and testing. Where it is intended to till the rudder with plastic foam, details of the foam material are to be submitted.

4.2 Double plated rudders

4.2.1. Thickness 't' of the rudder side, top and bottom plating is not be less than :

$$t = 5.5sf_a\sqrt{\left(T + \frac{F_r}{A}10^{-4}\right)}.10^{-3} + 2.5mm$$

Where,

$$f_a = \sqrt{1.1 - 0.5(s/1000.l)^2}\ \max.1.00$$

s = the smaller of the distances between the horizontal or the vertical web plates (mm).

l = the larger of the distances between the horizontal or the vertical web plates [m].

The thickness 't' is however not to be less than the minimum side shell thickness as per Pt.3, Ch.7.

For nose plates the thickness is to be increased to 1.25 t.

4.2.2 The thickness of the vertical and horizontal webs is not to be less than 70 per cent of the requirement given in 4.2.1 with a minimum of 7 [mm].

4.2.3 The thickness of side plating and vertical webs forming the main piece may have to be increased tocality in way of the coupling and cut outs or openings, if any.

4.3 Single plated rudders

4.3.1 Rudder blade thickness is not to be less than:

$t = 1.5.\ y.\ V.\ 10^{-3} + 2.5$ [mm]

where y is the spacing of horizontal arms, [mm]; and V, the speed in knots as per 3,1.1.

4.3.2 Rudder blade is to be stiffened by horizontal arms spaced not more than 1000 [mm] apart. The arms are to be efficiently attached to the main piece. The thickness of the

arms is not to be less than the blade thickness. The section modulus of the arms in way of main piece is not to be less than:

$Z = 0.5 \cdot y \cdot X^2 V^2 \cdot 10\text{-}3\ [cm^3]$

Where

x is the distance from the centre line of the stock to the after end of the rudder [m].

4.3.3 The diameter of the maintenance at top end is not to be less than that of the lower rudder stock, and it may be gradually reduced towards lower end.

Section 5

Rudder Stock and Pintles

5.1 Rudder stock

5.1.1 Diameter of the rudder stocks, when obtained by direct calculation, are normally to give an equivalent stress se not exceeding 138 [N/mm^2] i.e.

$$\sigma_e = \sqrt{\sigma^2 + 3\tau_t^2} \le 138[N/mm^2]$$

Where,

σ is the bending stress [N / mm^2]
τ is the torsional shear stress [N/mm^2].

This requirement is regardless of the liners; and both ahead and astern conditions are to be considered.

5.1.2 The diameter of the rudder stock at and above rudder carrier is given by

$$d_u = 4.0^3\sqrt{(Q_r)}[mm]$$

5.1.3 The diameter *of* rudder stock at any other cross section is given by

$$d_s = d_u \cdot^{-6}\sqrt{\left[1 + \frac{4}{3}.\frac{BM^2}{Q_r^2}\right]}[mm]$$

where BM is the bending moment at the cross section under consideration obtained as per 3.3.

5.1.4 The diameter of the rudder stock al neck bearing is to be maintained to a point as far as practicable above the top of the neck bearing and may subsequently be tapered to that required at the rudder carrier. The length of the taper is to be at least three limes the reduction in diameter. Particular care is to be taken to avoid the formation of a notch at the upper end of the taper.

5.1.5 Sudden changes of section or sharp corners in way of the rudder coupling, jumping collars and shoulders for rudder carriers are to be avoided. Jumping collars are not to be welded to the rudder stock. Keyways in the rudder stock are to have rounded ends and the corners at the base of the keyway are to be adequately radiused.

5.2 Pintles and bearings

5.2.1 The diameter d_p of the pintles, measured on the inside of liners where fitted, is not to be less than;

$$d_p = 0{,}35\ \sqrt{R}\ [mm]$$

where
R = Reaction force |N] at the pintle bearing, obtained as per Sec. 3.3.

5.2.2 Pintles are to have a conical attachment to the gudgeons and the taper on diameter is generally to range between 1:8 to 1:12. The slugging nut is to be efficiently secured. An effective sealing against sea water is to be provided at both ends of the cone

5.2.3. The length of pintle housing in the gudgeon is not to be less than the pintle diameter d_p. The thickness of the pintle housing is not to be less than 0.25 d_p

5.2.4 Where liners are fitted to pintle, they are to be shrunk on or otherwise efficiently secured. If liners are to be shrunk on, the shrinkage altowance is to be indicated on the plans where liners formed by stainless steel weld deposit, the pintles are to be of weldable quality steel. and details of the procedure are to be submitted Bushing is to be effectively secured against movement.

5.2.5. Pintle clearances are normally to be as given in Table 5.2.5.

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Attention is to be paid to the manufacturer's recommendations particularly where bush material) requires pre-soaking.

Table 5.2.5. Pintle Clearnaces	
- For metal bearing material	0.001 d_p + 1.0 [mm]
- for synthetic bearing	To be specially determined considering the swelling and thermal expansion.

Material	Properties of the material, but not less than 1.5 [mm]

5.2.6. The bearing pressure 'p' due to reaction 'R' on projected bearing area is not to exceed the values given in Table 5.2.6. For the purpose of this calculation, the bearing length is not to be taken greater than 1.2 times the rudder stock or pintle diameter measured outside of liners, if liners, if fitted. Higher values than given in the table may be taken on verification by tests.

Table 5.2.6. : Bearing Pressure	
Bearing Materials	**P [N / mm^2]**
Steel bronze against lignum vitae	2.5
Steels against white metal, oil lubricated	4.5
Steel against synthetic material with hardness between 60 and 70 shore D(1)	5.5
Steel against stainless steel, bronze and hot pressed bronze – graphite materials.	7.0
Note : (1) Indentation hardness test at 23^0 C and with 50% moisture, according to a recognized standard. Synthetic bearing materials to be of approved type.	

Section 6
Rudder Couplings

6.1 Horizontal bolted couplings

6.1.1 The diameter of the coupling bolts is not to be less than;

$$d_b = 0.62\left[\frac{d_s^{\,3}}{n.e._m}\right]^{1/2} [mm]$$

where.
d_s = Rule stock diameter [mm) in way of the coupling flange;

n = total number of bolls;

e_m = mean distance of the boll axis from the centre of the boll system [mm].

6.1.2 Coupling bolts are to be fitted bolts and a minimum of six (6) bolts are to be provided. Their nuts are to be effectively tocked.

6.1.3. Mean distance em from the centre of the bolts tothe centre of the boll system is not to be less than 0.9 d_s [mm]. In addition, where the coupling is subjected to bending stress the mean athwartvessel distance From the centre of bolls to the tongitudinal centreline of the coupling is not to be less than 0.6 d_s [mm].

6.1.4 The thickness of coupling flanges is not to be less than the diameter of the coupling bolls.

6.1.5 The width of material outside the boll holes is not to be less than 0.67 d_b [mm].

6.2 Vertical flange couplings
6.2.1 The diameter of the coupling bolts is not to be less than:

$$d_b = 0.81\left[\frac{d_s^{\,3}}{n}\right]^{1/2} [mm]$$

where,

d_s = Rule stock diameter [mm] in way of the coupling flange

n = total number of bolts, not to be less than 8.

6.2.2. The first moment of area of the bolts about the centre of the coupling to be not less than :

$$M = 0.000043\ ds^3\ [cm^3]$$

6.2.3. The thickness of the coupling flanges must be at least equal to the bott diameter; and the width of the flange material outside the bolt holes must be greater than or equal to 0.67 d_b.

End of Chapter

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Chapter 13

Anchoring and Mooring Equipment

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1.	General
2.	Structural Arrangement for Anchoring Equipment
3.	Equipment Specification
4.	Anchors
5.	Anchor Chain Cables
6.	Towlines and Mooring Lines
7.	Windlass

Section 1
General

1.1 Introduction

1.1.1 To entitle a vessel to the letter 'L' in her character of classification anchoring and mooring, equipment is to be provided in accordance with the requirements of this Chapter.

These requirements are based on maximum current of 8 [km/hr], wind speed of 25 [m/sec], water depth of 5-7 [m] and good holding ground conditions. Where environmental conditions are more onerous, special consideration will be required.

1.1.2 Except in case of tugs, towlines are not subject of classification and the details given in the equipment table are for guidance purpose only. However, for tugs intended for towing other vessels, having onboard suitable lines for the same purpose, the requirement of towline may be waived with written concurrence from the Owners.

1.1.3 Attention is drawn to any relevant requirements of the local Authorities with which the vessel is to be registered.

1.2. Documentation

1.2.1 The arrangement of anchoring and mooring equipment and Equipment Number calculations are to be submitted for information.

1.2.2 Following details of the proposed equipment are to be submitted for approval:-

1) Number, weight, type and design of anchors.

2) Length, diameter, grade and type of chain cables.

3) Type and breaking toad of steel and fibre. ropes.

1.3 Symbols

1.3.1 L.B.T as defined in Ch.1, Sec.2.

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Section 2

Structure Arrangement for Anchoring Equipment

2.1 General

2.1.1 The anchors are normally to be housed in hawse pipes and anchor pockets of adequate size, scanning and suitable form to prevent movement of anchor and chain due to wave action.

The arrangements are to provide an easy lead or chain cable from windlass to the anchors. Upon release of the brake, the anchors are to immediately start falling by their own weight. Substantial chafing lips are to be provided at shell and deck. These are to have sufficiently large, radiused Faces to minimize the probability of cable links being subjected to large bending stresses, Alternatively, roller fairleads of suitable design may be fitted.

Alternative arrangements for housing of anchors will be specialty considered.

2.1.2 The shell plating and framing in way of the hawse pipes are to be reinforced as necessary.

2.1.3 The chain tocker is to have adequate capacity and depth to provide an easy direct lead for the cable into the chain pipes, when the cable is fully stowed. The chain pipes are to be of suitable size and provided with chafing lips. The port and starboard cables are to have separate spaces. The chain lockers boundaries are to be watertight. Provisions are to be made to minimize the ingress of water to the chain locker in bad weather. Adequate arrangement for drainage of chain lockers is to be provided.

Provisions are to be made for securing the inboard ends of the chains to the structure. The strength of this attachment should be between 15 percent to 30 percent of the breaking strength of the chain cable. It is recommended that suitable arrangements be provided so that in an emergency the chain can be readily made to slip from an accessible position outside the chain locker.

2.1.4 The windlass and chain stoppers are to be efficiently bedded and secured to deck. The thickness of deck plating is to be increased in way of the windlass and chain stoppers and adequate stiffening underneath is to be provided.

Section 3
Equipment Specification

3.1 Equipment number

3.1.1 The equipment number, EN. on which the requirements of equipment are based is to be calculated as foltows :

$$EN = \Delta^{2/3} + 0.1A$$

Δ = moulded displacement, (t), corresponding to the maximum toad water line

A = area [m^2] in profile view of the hull above the maximum load waterline, including super-structures, deck houses, trunks and hatch coaming, which are within the Rule length the vessel. Houses of breadth less than B/4 may be disregarded

In the calculation of A, sheer and trim are to be ignored.

Parts of windscreens or bulwarks which are more than 0.8 [m] in height are to be regarded as parts of houses when determining A.

3.2 Equipment

3.2.1 The anchors, chain cables, towlines and mooring lines for all vessels are to comply with Table 3,2.1, except where modified for particular vessel types as per 3.2.2 to 3.2.6 below.

3.2.2 For vessels without a sharp stem, a single anchor of twice the mass may be fitted in lieu of the two bower anchors required as per the table.

3.2.3. For all self-propelled vessels except tugs, operating rivers where, in view of their length, they cannot safely turn for anchoring with the bow in an upstream direction, the mass of the

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stern anchor is to be twice that required as per the table.

3.2.4 For tugs intended for pushing or side tow operations, two stern anchors are to be provided and the mass of each anchor is to be based on EN calculated considering the complete barge train; but not less than 300 (kg)

3.2.5 For tugs intended for towing operations only, stern anchors need not be provided; and for tugs intended for pushing operations only bower anchors not be provided.

3.2.6. For non-propelled vessels intended to be towed, two stern anchors of the tabular mass or one stern anchor of twice the mass are to be provided.

Table 3.2.1 : Equipment - Anchors, anchor cables, towlines and mooring lines

EN	Stockless bower anchors See Note 1 Mass (kg)	Stockless bower anchors See Note 1 Mass (kg)	Towline, (Recommendation) See Note 3	Mooring lines, See Note 4
			Minimum breaking strength [kN]	Minimum breaking strength [kN]
4 & ≤ 6	35	-	-	-
> 6 & ≤ 8	45	-	-	-
> 8 & ≤ 10	60	-	-	14
> 10 & ≤ 12	70	-	-	17
> 12 & ≤ 14	85	-	-	20
> 14 & ≤ 17	100	-	-	24
> 17 & ≤ 20	115	-	-	28
> 20 & ≤ 25	145	-	56	36
> 25 & ≤ 30	175	-	67	43
> 30 & ≤ 40	230	115	90	57
> 40 & ≤ 50	290	145	112	72
> 50 & ≤ 60	345	175	134	86
> 60 & ≤ 70	400	200	157	100
> 70 & ≤ 80	460	230	179	115
> 80 & ≤ 90	520	260	202	129
> 90 & ≤ 100	575	290	224	143
> 100 & ≤ 110	635	320	231	158
> 110 & ≤ 120	690	345	238	172
> 120 & ≤ 130	735	370	245	182
> 130 & ≤ 140	780	390	252	187
> 140 & ≤ 150	825	420	259	192
> 150 & ≤ 160	870	435	266	197
> 160 & ≤ 170	915	460	272	202
> 170 & ≤ 180	960	480	279	208
> 180 & ≤ 190	1000	500	286	213
> 190 & ≤ 200	1045	525	293	218
> 200 & ≤ 210	1090	550	300	223
> 210 & ≤ 220	1135	570	307	228
> 220 & ≤ 230	1180	590	314	233
> 230 & ≤ 240	1225	615	321	238
> 240 & ≤ 250	1270	635	328	244

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Table 3.2.1. : Equipment – Anchors, anchor cables, towlines and mooring lines (Contd.)

EN	Stockless bower Anchors, See Note 1 Mass [kg]	Stockelss stern Anchors, See Note 2 Mass [kg]	Towline, (Recommendation) See Note 3	Mooring lines, See Note 4
			Minimum Breaking strength [kN]	Minimum Breaking strength [kN]
> 250 & ≤ 260	1315	660	335	249
> 260 & ≤ 270	1360	680	342	254
> 270 & ≤ 280	1405	700	349	259
> 280 & ≤ 290	1450	725	355	264
> 290 & ≤ 300	1495	750	362	269

NOTES:

1. Normally two stockless bower anchors are required, but see 3.2.2.

2. i) For self propelled vessels, see 3.2.3.
 ii) For lugs, see 3.2.4 and 3.2.5.
 iii) For non-propelled vessels being towed, see 3.2.6

3. The length of the towline is to be not less than given by the following formulae, as appropriate:

a) L + 75 [m] for vessels
for which 20 ≤ EN≤160.

b) L + 100 [m] for vessels
for which EN > 160.

For tugs intended for towing, the breaking strength of the towline is not to be less than twice the maximum bollard pull,

4. Two mooring lines are required for vessels for which EN is below 100 and three for vessels having larger values. The length of each wire in the mooring lines is lo be not less than 2.5L, but need not be more than 100 [m].

5. The length of short or stud link chain cable for each bower anchor is to be not less than L + 10 [m) with a minimum of 40(m] and a maximum of 60 [m]. The minimum breaking strength of the chosen diameter and grade of short or stud link chain cable or wire is to be not less than 0.343 limes the mass of anchor [kg) in case of ordinary anchor and 0.458 times the mass of anchor [kg] in case of HHP anchor.

6. The length of cable for each stern anchor, on vessels for which EN > 30, is to be not less than 40 [m].

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Section 4
Anchors

4.1 General

4.1.1 Anchors are to be of an approved design and of a type suitable for the intended service.

4.1.2 The mass of each bower anchor as required in Sec. 3 is for anchors of equal mass. The masses of individual anchors may vary by ± 7 per cent of the tabular masses, provided that the total mass of the anchors is not less than would have been required for anchors of equal mass. Where the maximum current expected in service differs considerably from 8 [km/h], the anchor weight required by Table. 3.2.1 is to be suitably modified.

4.1.3 The mass of the head, including pins and fittings, of an ordinary stockless anchor is not to be less than 60 per cent of the total mass of the anchor.

4.1.4 The mass 'ex stock' of stocked bower or stream anchors is not to be less than 80 percent of the tabular mass of ordinary stockless bower anchors. The mass of the stock is to be 25 per cent of the total mass of the anchor including the shackle etc. but excluding the stock.

4.1.5 When anchors of a design approved for the designation 'High Holding Power are used as bower anchors, the mass of each such anchor may be 75 per cent of the tabular mass of ordinary stockless bower anchors. For approval of HHP anchors, see Pt.3. Ch.15, Cl.4.2 of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules).

4.1.6 Anchor shackles are to be of a design and material suitable to the service for which the anchor is intended.

4.2 Manufacture and testing

4.2.1 Anchors and anchor shackles are to be manufactured and tested in accordance with the requirements of Pt.2, Ch.10 of the Rules and Regulations for the Consumption and Classification of Steel Vessels (Main Rules).

Section 5
Anchor Chain Cable

5.1 General

5.1.1 Chain cables may be either short link or stud link and of mild steel or special quality steel meeting the requirements of breaking strength and the length as given in Table 3.2.1. The required chain diameter is to be obtained by using tables of chain breaking strength given in Pt.2, Ch.10 of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules).

5.1.2 In conjunction with HHP anchors, only Grade CC2 or ISO Grade 40 chain cable is to be used, however, for HHP anchors having a mass of 300 [kg] or less. Grade CC1 chain cable may be accepted provided the diameter of Grade CC1 cable required is increased by five per cent.

5.1.3 When desired by the Owners, steel wires may be used instead of chain cables. Steel wires are to have a breaking strength not less than that required for chain cables and their length is to be not less than 25 per cent in excess of the length required for chain cable as per Table 3.2.1.

In such cases it is recommended that a short length of chain or a swivel is Titled between the anchor and the wire rope.

5.2 Manufacture and testing

5.2.1 Chain cables, steel wire ropes and shackles are to be manufactured and tested in accordance with the requirements of Pt.2, Ch.10 of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules).

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Annexure - I

Section 6

Towlines and Mooring Lines

6.1 General

6.1.1. Towlines and mooring lines may be of steel wire, natural fibre or synthetic fibre and are to be made by an approved manufacturer.

6.1.2 The number, length and breaking strength of towlines and mooring lines are to be as required by Sec.3. Also see Sec.1.1.2.

6.1.3 The lengths of individual mooring lines may be reduced by up to 10 per cent of the tabular length, provided that the total length of mooring lines is not less than would have resulted had all tines been of equal tabular length.

6.1.4. The diameter of a fibre rope is not to be less than 20 [mm)

6.2 Manufacture and testing

6.2.1 Steel wire ropes are to be manufactured and tested in accordance with the requirements of Pt.2, Ch.10 of the Rules and Regulations for the Construction and Classification of Steel Vessels (Main Rules).

6.3 Mooring arrangement

6.3.1 Means are to be provided to enable mooring lines to be efficiently secured on board vessel by an adequate number of suitably placed bollards on either side of the vessel.

6.3.2 Mooring winches should be fitted with drum brakes of sufficient strength to prevent unreeling of the mooring lines.

6.3.3. Adequate stiffening is to be provided in way of Bollards. Mooring winches etc.

Section 7

Windlass

7.1 General

7.1.1 The requirements of 7.1.2 to 7.1.5 apply equally to bow and stem anchor winches.

7.1.2 On vessels equipped with anchors having a mass of over 50 [kg], windlass(es) of sufficient power and suitable for the type and size of chain cable are to be fitted. Arrangements for anchor davits will be specially considered,

7.1.3 The windlasses may be hand or power operated. Hand operated windlasses are acceptable only if the effort required at the handle does not exceed 15 [kgf] for raising one anchor at a speed of not lessthan 2 [m/min] and making about 30 turns of the handle per minute.

7.1.4 A power operated windlass is to be capable of exerting, for a period not less than 30 minutes, a continuous duty pull of 28 d_c^2[N] and to raise one anchor with chain cable at a mean speed of not less than 9 [m/min], d_c [mm] being the diameter required for Grade CC1 chain cable.

7.1.5 Winches suitable for operation by hand as well as by external power are to be so constructed that the power drive cannot activate the hand drive.

7.2 Testing

7.2.1 After installation on board, anchoring tests are to be carried out to demonstrate satisfactory working

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Chapter 14
Welding

Contents

Section	
1.	General
2.	Welding
3.	Welded Connections

Section 1
General

1.1 Scope

1.1.1 Welding In steel hull construction of all types of vessels is to comply with the requirements of this Chapter.

Welding in aluminium structures will be specially considered.

1.2 Documentation

1.2.1 Connection details of the welded structural members, including type and size of welds are to be clearly indicated on the plans submitted for approval. An explanation of all symbols or abbreviations used in detailing the weld connections should be included on the plans.

Details of proposed welding procedure is to be submitted indicating preheating temperature and any post welding. heat treatment, if employed. Extent to which automatic welding, including deep penetration welding, is to be employed should also be indicated.

Section 2
Welding

2.1 Welders and supervision

2.1.1 Welders are to be proficient in the type of work on which they are to be engaged. The records of their tests and qualifications are to be kept by the builders and made available to the Surveyors. A sufficient number of skilled supervisors are to be employed to ensure effective control at all stages of assembly and welding operations.

2.2 Welding electrodes

2.2.1 Electrodes and welding consumables approved by IRS in accordance with the requirements of Pl.2. Ch.11 and suitable for the type of joint and grade of steel, are to be used.

2.2.2 For the connection of two different grades of steel of the same tensile strength properties, electrodes suitable for the lower grade will be generally acceptable except at structural discontinuities or other points of stress concentration.

2.2.3 For the connection of steel of different tensile strengths, the electrodes are to be suitable for the tensile strength of the component, on the basis of which the weld fillet size has been determined In Sec.3.

2.3 Preparation for welding

2.3.1 The parts to be welded are to be fitted in accordance with the approved joint detail. The edge preparation is to be accurate and uniform.

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Means are to be provided for maintaining the parts to be welded, in correct position during the welding operations. Excessive force is not to be employed in aligning the pails before welding and The means employed in maintaining The alignment are to be so arranged as to allow for expansion and contraction during the welding operation. All methods employed in correcting improper alignment are to be to the satisfaction of the Surveyor.

2.3.2All surfaces to be welded are to be clean dry and free from rust, scale and grease. The surface and boundaries of each run of deposit are to be thoroughly cleaned and freed from slag before the next run is applied. Before a manual sealing run is applied to the back of a weld. The original root material is to be gouged out to sound metal.

2.3.3Tack welding is to be kept lo a minimum, and where used, should be equal in quality to that of the finished welds any defective tack weld is to be cut out before completing the finished welds. Care is to be taken in removing the lack welds to ensure that the structure is not damaged in doing so.

2.4 Welding procedure

2.4.1Only approved welding procedures are to be used, See 2.5.

2.4.2Structural arrangements are to be such as to allow adequate access for satisfactory completion of all welding operations. Welded joints are to be so arranged so as to facilitate down hand welding wherever possible.

2.4.3 The sequence of welding is to be so planned that any restraint during welding operations is reduced to a minimum. The ends of the frames and stiffeners should be left unattached to the plating at the subassembly stage until connecting welds are made in The intersecting systems of plating, framing and stiffeners, at the erection stage.

Where a butt meets a seam, the welding of the seam should be interrupted well clear of the junction and not be continued until the butt is completed. Welding of the butt should continue past the open seam and The weld be chipped out for the seam to be welded straight through.

2.4.4 Adequate precautions are to be taken to ensure that The welding site is protected from the deleterious effects of high moisture, severe wind and extreme cold.

2.5 Approval of procedures

2.5.1 Unless previously approved, welding procedures are to be established by the yard and forwarded to IRS for approval. The welding procedure specifications are lo include detailed description of the base material, primer, plate thickness range, joint/groove design, welding consumable, welding position, welding techniques, welding parameters, preheating / inter pass temperature and post heat treatment if any.

The welding for procedure qualification and subsequent testing, are to be witnessed by the IRS Surveyor.

2.6 Inspection of welds

2.6.1 Effective arrangements are to be provided for the inspection of finished welds to ensure that all welding has been satisfactorily completed.

2.6.2 All finished welds are to be visually inspected and are to be sound, uniform and substantially tree from slag inclusions, porosity, undercutting or other defects. Welds and adjacent base metal are to be Tree from injurious arc strikes.

23.3 For the examination of important structural welds, visual inspection is to be supplemented by radiography or other acceptable nondestructive crack or flaw detection methods. The extent of such examination is to be to the Surveyors' satisfaction, but particular attention is to be given to the following locations:

a) Junction and crossings of seams and butts in strength deck, sheer strake, side and bottom shell within 0.4L amidvessels.

b) Butts of keel plating and rounded sheers rake within 0.4L amidvessels,

c). Insert plates in way of hatch openings on the strength deck.

d) Butts of longitudinal framing and longitudinal bulkhead stiffeners within 0.4L amidvessels.

2.6.4. Defective sections of welds as found by visual or non - destructive examination or leakages under hydrostatic tests, are to be gouged out as necessary and carefully rewarded.

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Section 3

Welded Connections

3.1 Butt welds

3.1.1 Plates of equal thickness may be manually butt welded as per Fig.3.1.1. For automatic welding procedures and special welding techniques, the welding procedure will be specially considered.

3.1.2 For joints of plates with difference in thickness of more than 4 [mm], the thicker plate is to be tapered. The taper is not to exceed 1:3. Edge preparation after the tapering is to be as indicated in Sec. 3.1.1.

3.1.3 All manual butt welds are normally to be welded from both sides. Where a back ceiling run is not practicable or in certain cases when the stress level in the members is very low welding on one side may be permitted provided the welding process is found satisfactory.

Where stiffening members, attached by continuous fillet welds, cross the finished butt or seam welds, these welds are to-be made flush in way of the faying surface. Similarly for butt welds in webs of stiffening members, the butt weld is to be first completed and made flush with the stiffening member before the stiffener is connected to the plating by fillet weld. The ends of the flush portion are to run out smoothly without notches or any sudden change of section. Where such conditions can not be complied with, a scallop is to be arranged in the web of the stiffening member. Scallops are to be of such size and in such a position, that a satisfactory weld can be made.

3.2 'T' connections

3.2.1 The throat thickness (See Fig,3.2.1) of the fillet welds is given by:

throat thickness = t_p weld factor. d/s

where,

t_p = thickness [mm], of the thinner of the two parts being connected.

d = distance [mm], between the successive weld fillets.

s = length [mm], of the correctly proportioned weld fillets, clear of end createrss is not to be less than 75 [mm].

The weld factors for various connections are generally to be as given in Table - 3.2.1.

Where an approved automatic deep penetration procedure is used the weld factors may be reduced by 15 per cent.

3.2.2 The throat thickness is not to be less than 3.0 [mm] and generally not to be greater than 0.44 t_p for double continuous welds and the greater of 0.44 t_p or 4.5 [mm] for intermittent welds.

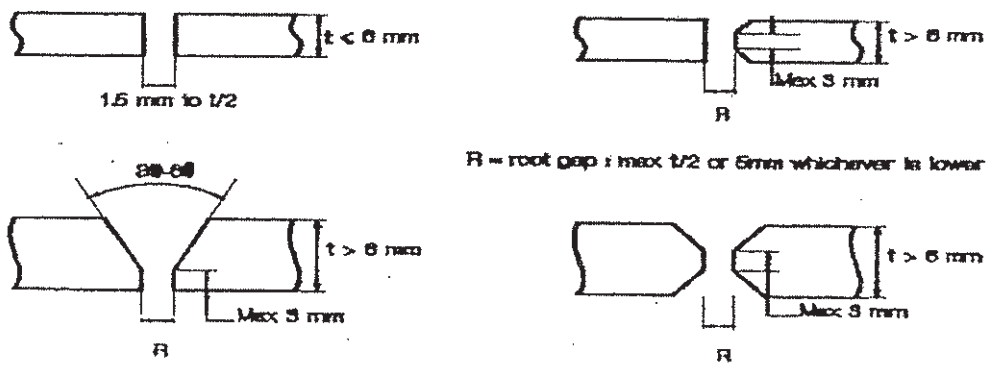


Fig.3.1.1 : Manually welded butt joints

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Table 3.2.1 : Weld factors for fillet welds					
	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Single Bottom					
Centre girder	To keel plate or bar keel	0.3	*		
	To face plate	0.15		*	
Side girder	To bottom shell	0.15		*	
	To face plate	0.13		*	
	To floors	0.20		*	
Floors	To keel plate	0.15	*		
	To shell plating	0.15		*	
	To centre girder	0.35	*		
	To longitudinal bulkheads	0.35	*		
	To face plate	0.15		*	
	To sterntube covering	0.15	*		
Bottom longitudinal	To shell plating	0.13		*	
Double Bottom, See Note 1					
Centre girder or duct keel	To keel plate		*		
	To inner bottom	0.3		*	
Side girder	To bottom shell	0.25		*	
	To inner bottom	0.15		*	
	To floors	0.15		*	
Floors	To shell plating	0.15		*	
	To inner bottom / margin plate	0.15		*	
	To centre girder / keel plate	0.20			
Margin plate	To shell plating	0.4	*		
	To inner bottom	0.4	*		
Inner bottom	To side shell	0.4	*		
Tank side brackets	To shell plating	0.3		*	
	To margin plate	0.3		*	
Bracket floor	To inner bottom / bottom shell	0.15		*	
	To centre girder	0.25		*	
	To side shell / margin plate	0.25		*	
Bottom frames	To shell plating	0.13		*	
Reverse frames	To inner bottom	0.13		*	
Longitudinals	To shell plating	0.13		*	
	To inner bottom	0.13		*	
Tank boundaries and bilge wells		0.40	*		
Stiffeners	To floors and girders	0.13		*	

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	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Structure in Machinery Space					
Floors and girders	To shell & inner bottom	0.3	*		
	To face plate	0.2			
Transverse & longitudinal frames	To shell plating	0.15			
Floor	To centre girder in way of engine, thrust blocks & boiler seatings				
	- in single bottom	0.50	*		
	- in double bottom	0.30	*		
Main engine foundation girders	To top plate	0.5	*		See Note 2
	To hull structure	0.4	*		
Floors	To engine girder	0.4	*		
Brackets etc.	To engine girders	0.3	*		
Side Structure					
Transverse frames	To side shell				
	- in tanks	0.13		*	
	- elsewhere	0.11		*	
Side longtitudinals	To shell plating	0.13		*	
Web frames & side stringers	To shell plating				
	- within 0.2 x span from ends	0.35	*		
	- elsewhere	0.20		*	
	To face plate and tripping bracket	0.15		*	
Web frames	To side stringers	0.3	*		
Bilge keel	To ground bars	0.2	*		
Bilge keel ground bar	To side shell	0.35	*		Single cont.
Deck Structure					
Strength deck	To shell	F.P.			See note 3
Other decks	To shell and bulkheads	0.3	*		Generally
Deck beams	To deck plating				
	- in tanks	0.13		*	
	- elsewhere	0.11		*	
Deck longitudinals	to decks	0.13		*	
Deck girders	To deck plating				
	- within 0.2 x span from ends	0.35	*		
	- elsewhere	0.20		*	
	To face plating and tripping brackets	0.15		*	
Cantilever webs	To shell, decks, face plates and longitudinal girders at ends	0.35	*		
Pillars	To deck, inner bottom and pillar brackets	0.40	*		

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	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Construction in 0.25L from F.P.					
Floors and girders	To shell	0.25	*		
	To inner bottom	0.25		*	
Bottom longitudinals	To shell	0.15	*	*	
Shell	To transverse & longitudinal side framing	0.15		*	
Panting stringers	To shell & frames	0.30	*		
All internal structure	In fore peak (unless a higher factor is specified)	0.13		*	
Aft Peak Construction					
All internal structure	On bottom, side shell & aft peak bulkhead	0.3	*		See 3.2.5
Boundaries of	Watertight, oiltight & wash bulkheads and shaft tunnels	0.4	*		To be specially considered for chemical cargo tanks
Stiffeners	On tank & wash bulkheads	0.13		*	
	On pillar bulkheads	0.13		*	
	On ordinary bulkheads	0.11		*	
Vertical & horizontal girders in tanks & wash bulkheads	To bulkhead plating				
	- within 0.2 x span from ends	0.40		*	
	- else where	0.40		*	
	- to face plate	0.30		*	
	- to tripping brackets	0.30			
Vertical & horizontal girders elsewhere	To bulkhead plating	0.15			
	- with 0.2 x span from ends	0.35		*	
	- elsewhere	0.20		*	
Primary structures in Cargo Tanks					
Webs	To shell, deck & bulkheads				
	- within 0.2 x span from ends	0.4	*		
	- elsewhere	0.3	*	*	
Webs	To face plates	0.3	*		
Webs	To webs of other primary members	0.3	*		
Boundaries	Of tripping brackets	0.15		*	
Superstructures & deckhouses					
External bulkheadsq	To deck				
	- on 1st and 2nd tiers	0.40	*		
	- elsewhere	0.25	*		
Internal bulkheads	Boundaries	0.13		*	
Stiffeners	To external bulkheads	0.10		*	

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	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Construction in 0.25L from F.P.					
Floors and girders	To shell	0.25	*		
	To inner bottom	0.25		*	
Bottom longitudinals	To shell	0.15	*	*	
Shell	To transverse & longitudinal side framing	0.15		*	
Panting stringers	To shell & frames	0.30	*		
All internal structure	In fore peak (unless a higher factor is specified)	0.13		*	
Aft Peak Construction					
All internal structure	On bottom, side shell & aft peak bulkhead	0.3	*		See 3.2.5
Boundaries of	Watertight, oiltight & wash bulkheads and shaft tunnels	0.4	*		To be specially considered for chemical cargo tanks
Stiffeners	On tank & wash bulkheads	0.13		*	
	On pillar bulkheads	0.13		*	
	On ordinary bulkheads	0.11		*	
Vertical & horizontal girders in tanks & wash bulkheads	To bulkhead plating				
	- within 0.2 x span from ends	0.40		*	
	- else where	0.40		*	
	- to face plate	0.30		*	
	- to tripping brackets	0.30			
Vertical & horizontal girders elsewhere	To bulkhead plating	0.15			
	- with 0.2 x span from ends	0.35		*	
	- elsewhere	0.20		*	
Primary structures in Cargo Tanks					
Webs	To shell, deck & bulkheads				
	- within 0.2 x span from ends	0.4	*		
	- elsewhere	0.3	*	*	
Webs	To face plates	0.3	*		
Webs	To webs of other primary members	0.3	*		
Boundaries	Of tripping brackets	0.15		*	
Superstructures & deckhouses					
External bulkheadsq	To deck				
	- on 1st and 2nd tiers	0.40	*		
	- elsewhere	0.25	*		
Internal bulkheads	Boundaries	0.13		*	
Stiffeners	To external bulkheads	0.10		*	

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	Structural items	Weld Factors	d.c.	Int. weld	Remarks
Hatch ways and closing appliances					
Hatch caming	To deck at corners	0.5	*		
	To deck elsewhere	0.4	*		
	To face plate	0.4	*		
	To hatch cover rest bar	0.16	*		
Hatch cover	To stiffeners	0.12		*	
Rudders & Nozzles					
Rudders					See Note 4
Main piece members	To coupling flange	F.P.	*		
	To each other	0.44	*		
Rudder plating	To rudder webs, elsewhere	0.20	*		
Nozzles	Generally as for rudders				
Miscellaneous fittings & equipment					
Faming ring for manhole type covers	To deck & bulkhead	0.4	*		
Framing around port and W.T. / oiltight doors	To plating	0.4	*		
Sea – chest boundary welds	Exposed to seal	0.5	*		
	Elsewhere	0.4	*		
Ventilators, air pipes etc.	To deck	0.45	*		
Bulwark stays	To deck	0.4	*		
	To bulwark plating	0.2			
Fabricated anchors		F.P.			
Masts, derrick posts, crane pedestals, deck machinery & morning equipment seating – to deck etc.		To be considered in each individual case			

d.c.	Double continuous
F.P.	Full penetration weld
Note 1	For tank boundaries see 3.2.5
Note 2	Preferably to be deep penetration or full penetration weld depending on the thickness of the engine girders.
Note 3	Generally full penetration, but alternative proposals may be considered.
Note 4	See chapter 12, section 4.1.

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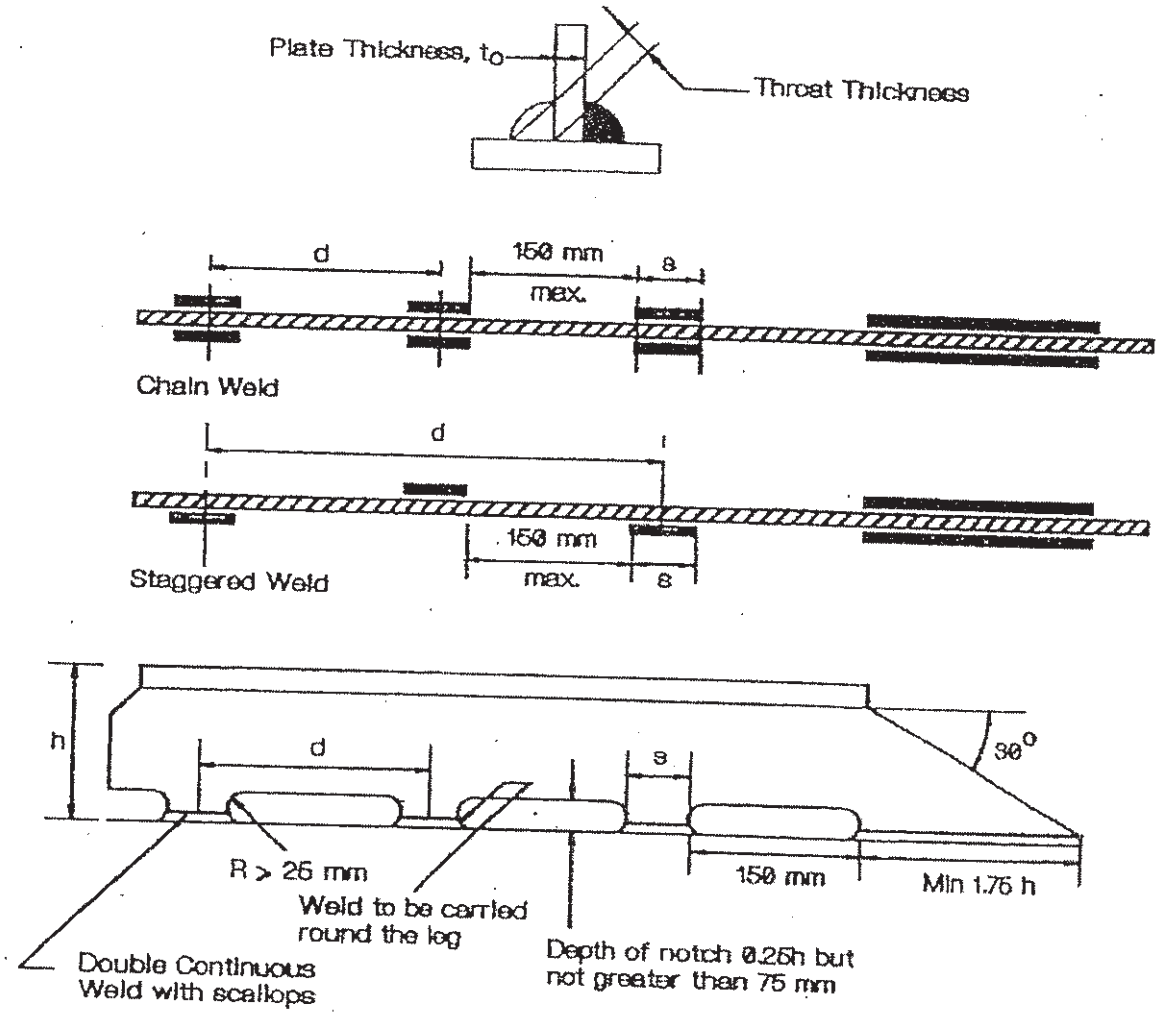


Fig.3.2.1 : Fillet welds

3.2.3 The leg length is not to be less than 2 times the specified throat thickness.

3.2.4 Where the connection is highly stressed, deep penetration or full penetration welding may be required. Where full penetration welding s required, the abutting plate may require to be beveled.

3.2.5 Continuous welding is to be adopted in the following locations and in any other region of high dynamic loading:-

a) Boundaries of weathertight decks and erections, including hatch coamings, companionways and other openings.
b) Boundaries of tanks and watertight compartments.
c) All structures in the after peak and the afterpeak bulkhead stiffeners.
d) All framing within holds of bulk carriers intended for carriage of coal.
e) All welding inside tanks intended for chemicals or edible liquid cargoes.
f) All lap welds in tanks.
g) Primary and secondary members to plating in way of end connections and end brackets to plating in the case of lap connection.
h) Other connections as given in Table - 3 2 1

3.2.6 Where intermittent welding is used, the welding is to be made continuous around the ends of brackets, lugs, scallops and at other orthogonal connections with other members. In tanks for water ballast, cargo oil or fresh water, only scalloped welding is to be used.

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3.2.7 Where structural members pass through the boundary or a tank, and leakage into the adjacent space could be hazardous or undesirable, lull penetration welding is to be adopted for the members for at least 150 [mm] on each side of the boundary. Alternatively, 3 small scallop of suitable shape may be cut in the member close to the boundary outside the compartment, and carefully welded all round.

3.3 Lap connections

3.3.1 Overlaps are not to be used to connect plates which may be subjected to high tensile or compressive loading. However, where they are adopted, the width of overlap is to be adequate to ensure a good weld, the surfaces are to be in close contact and the joints should be closed all round by continuous fillet weld.

3.4 Slot weld

3.4.1 For the connection of plating to internal webs, where access for welding is not practicable, the closing plating is to be attached by continuous full penetration or slot welds to flat bars Tilted to the webs. Slots are to be well rounded at ends, to have a minimum length of 75 [mm] and, in general, a minimum within of twice the plating thickness. The distance between the slots is not to exceed 150 [mm]. Complete filling of the solts is normally not permitted.

3.5 End connection

3.5.1 In way of the end connections of girders double continuous welding is to be used all around. The weld area is not to be less than the cross-sectional area of the member, and the throat thickness not less than that given by Table 3.2.1 for gilder ends.

3.5.2 Where stiffeners have bracketed end connections, bracket arms are to be welded all around and the throat thickness is not to be less than 0.35 times the thickness of bracket.

3.5.3. Where stiffeners are continuous at girder. they are to be connected to the webs, either directly and/or by means of lugs. The weld area is to be such that the shear stress does not exceed 80/k [N/mm^2]. Where the shear forces are high, a double sided connection to the web and/or a web stiffener welded on top of the continuous stiffener may be required.

End of Chapter

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Chapter 15

Hull Inspection, Workmanvessel and Testing

Contents

Section

1. Hull Inspection
2. Workmanvessel
3. Testing

Section 1

Hull Inspection

1.1 Approval of works

1.1.1. The builders, intending to class vessels to be built at their yard with Classification society are to demonstrate their capability to carry out the fabrication to acceptable quality standard before the commencement of the fabrication. Similar approval procedure shall apply to subcontractor's work also. Previous experience in the building and repair of revelant structures.

and equipment can be considered favourably in this regard.

1.2. Inspection facilities

1.2.1 Adequate facilities are to be provided to enable the Surveyor to carry out a satisfactory inspection of all components during each stage or prefabrication and construction.

Section 2

Workmanvessel

2.1. General

2.1.1 All workmanvessel is to be of good quality and in accordance with good vesselbuilding practice. Any defect is to be rectified to the satisfaction of the Surveyor before being covered with paint, cement or other composition.

2.1.2 The assembly sequence and welding sequence are to be agreed prior to construction and are to be to the satisfaction of the Surveyor.

2.2 Plate edges and cut-outs

2.2.1 Openings, holes and other cut-outs in the main structural components are to be rounded off by adequately large radii. The free edges of cut-outs. hatch corners etc. are to be properly Prepared and are to be free from notches. All edges should be faired.

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2.3 Cold forming

2.3.1 Flanging and bending or plates while cold forming are not to have an average bending radius less than three times the plating thickness. The minimum radius is not to be less than twice the plating thickness.

2.3.2. During joggling of plates and profiles, the depth of joggle is not to be less than four times and the bending radius not less than twice the web thickness.

2.4 Hammering, bending and straightening

2.4.1 Steel being worked on when hot, is not to be overheated, and it is to be hammered and bent in the appropriate heal condition. Steel which is burnt, is not to be used.

2.4.2. Flame heating may be employed to straighten buckled plating when the buckling is not severe.

Section 3
Testing

3.1 Definitions

3.1.1 Shop primer is a thin coating applied after surface preparation and prior to fabrication as a protection against corrosion during fabrication.

Protective coaling is a final coaling protecting the structure from corrosion.

3.1.2 Structural testing is a hydrostatic test carried out to demonstrate the tightness of the tanks and the structural adequacy of the design. Where practical limitations prevail and hydrostatic testing is not feasible (for example when it is difficult, in practice, to apply the required head at the top of the tank), hydropneumatic testing may be carried out instead. When a hydropneumatic testing is performed, the conditions should simulate, as far as practicable, the actual loading of the tank.

3.1.3 Hydropneumatic testing is a combination or hydrostatic and air testing, consisting of filling the lank within water up to its top and applying an additional air pressure. The value of the additional air pressure is to be at least as given in Sec. 3.4.

3.1.4 Leak testing is an air or other medium test carried out to demonstrate the tightness of the structure.

3.1.5 Hose testing is carried out to demonstrate the lightness of structural items not subjected to hydrostatic or leak testing and to other components which contribute to the watertight or wealhertight integrity of the hull.

3.2. Application

The requirements of this Section apply to :-

- tanks, including independent tanks
- watertight or weathertight structures.

The purpose of these tests is to check the tightness and/or the strength of structural elements.

Tests are to be carried out in the presence of the Surveyor at a stage sufficiently close to completion so that any subsequent work would not impair the strength and tightness of the structure.

For the general testing requirements, See Sec.3.8 and Sec.3.9.

3.3 Structural testing

3.3.1 Structural testing as required in Table

3.3.1 may be carried out before or after launching.

Shop primer may be applied before carrying out the structural testing.

3.3.2 Structural testing may be "carried out after the protective coating has been applied, provided that one of the following two conditions is satisfied:

a) all the welds are completed and carefully inspected visually to the satisfaction of the Surveyor, prior to the application of the protective coaling.

b) leak testing is carried out prior to the application of the protective coating.

However, when leak testing is not carried out, protective coating in way of the following welds should be applied only after the structural testing has been satisfactorily completed:

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- all erection welds, both manual and automatic
- all manual fillet weld connections on tank boundaries and manual penetration welds.

3.4 Leak testing

3.4.1 Where leak testing is carried out in accordance with Table 3.3.1. an air pressure of 7 [kN/m^2] is to be applied during the test.

Prior to inspection, it is recommended that the air pressure in the tank is raised to 10 [kN/m^2] and kept at this level for about 1 hour to reach a stabilized stale, with a minimum number of personnel in the vicinity of the lank, and then lowered to the lest pressure,

3.4.2 Welds are to be coated with an efficient indicating liquid.

3.4.3 A U-tube filled with water up to a height corresponding to the test pressure is to be fitted to avoid overpressure of the compartment tested and to verify the lest pressure. The U-lube should have a cross section larger than that of the pipe supplying air.

In addition, the test pressure is also to be verified by means of one master pressure gauge. Alternative means which are considered to be equally reliable, maybe accepted.

3.4.4 Where leak testing is carried out it should be prior to the application of a protective coating, on all fillet weld connections on tank boundaries, penetrations and erection welds on tank boundaries excepting welds made by automatic processes. Selected locations of automatic erection welds and pre-erection manual or automatic welds may require to be similarly tested at the discretion of the Surveyor. taking account of the quality control procedures operating in the vesselyard. For other welds, leak testing may be carried out alter the protective coating has been applied, provided that these welds were carefully inspected visually to the satisfaction of the Surveyor.

Any other recognized method may be accepted to the satisfaction of the Surveyor.

3.5 Hose testing

When hose testing is required to verify the tightness of the structures, as defined in Table 3.3.1, a minimum pressure in the hose of at least 200 [KN/m^2] is to be applied at a maximum distance of 1.5 [m]. The nozzle diameter is not to be less than 12 [mm].

3.6 Hydropneumatic testing

When hydropneumatic testing is performed. The same safety precautions as for leak testing (See Sec.3.4) are to be adopted.

3.7 Other testing methods

Other testing methods may be accepted, at the discretion of IRS, based upon equivalency considerations.

3.8 General testing requirements

General requirements for testing are given in Table 3.3.1.

3.9 Additional requirements for special type vessels/ tanks

In addition to the requirement of Table 3.3.1. particular requirements for testing of certain spaces within the cargo area of following types of vessels are given in Table 3.9.1.

- edible liquid carriers
- chemical carriers

These requirements intend generally to verify the adequacy of the structural design of the tank, based on the loading conditions on which the scanning of the tank structure were determined.

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Table 3.3.1 : General testing requirements

Item number	Structure to be tested	Type or testing	Structural Test pressure	Remarks
1	Double bottom tanks	Structural testing [a]	The greater of the following - head of water upto the top of overflow. - head of water upto the upperment continous deck	Tank boundaries tested from atleast one side.
2	Double side tanks	Structural testing [a]	The greater of the following - head of water upto the top of overflow. 1.0 [m] head of water above highest point of tank	Tank boundaries tested from at least on side.
3	Tank bulkheads, deep tanks	Structural testing [a]	The greater of the following [b] - head of water upto the top of overflow. - 1.0 [m] head of water above highest point of tank. - Setting pressure of the safety relief valves, where relevant	Tank boundaries tested from at least on side.
	Fuel Oil Bunkers	Structural Testing		
4	Fore peak and alter peak used as tank	Structural Testing	The greater of the following - head of the water upto the top of overflow. - 1.0 [m] head of water above highest point of tank.	Test of the after peak carried out after the stern tube has been fitted
	Fore peak not used as tank	Structural Testing	- head of water upto the uppermost continous deck for cargo vessels and bulkhead deck for passenger vessels.	
	After peak not used as tank	Leak testing		
5	Water tight bulkheads	Hose testing[c]		Through inspection of bulkhead to be carried out
6	Watertight doors below uppermost continous deck of bulkhead deck	Structural testing [d]	- Water pressure head upto the uppermost continous deck for. cargo vessels and bulkhead deck for passenger vessels.	
7.	Double plate rudders	Leak Testing		
8.	Shaft tunnel clear of deep tanks	Hose Testing		
9.	Shell doors	Hose Testing		
10	Weather light hatchcovers and closing appliances	Hose Testing		
11	Chain locker (if aft of collision bulkhead)	Structural Testing	Head of water up to the top	
12	Independent Tanks	Structural Testing	Head of water upto the top of overflow but not less than 0.9 [m]	
13	Ballast ducts	Structural Testing	Bellast pump maximum pressure.	

[a] Leak of hydropneumatic testing may be accepted under the conditions specified in 3.4 provided that at least on tank for each type is structurally tested. This however does not apply to cargo space boundaries in tankers and tanks for segregated cargoes or pollutants. If the structural test reveals weakness or severe faults not detected by the leak test. All tanks are to be structurally tested.

[b] Where applicable, the highest point of tank is to be measured to the dock and excluding hatches.

[c] When hose test cannot be performed without damaging possible outfitting (machinery, cables, switchboards, insulation etc) already installed, it may be replaced, at the decretion of IRS by a careful visual inspection of all the crossings and welded joints, where necessary, dye penetrate test or ultrasonic leak test may be required.

[d] The test may be made before or after the door is fitted. In case the test is done before, hose testing is to be carried out in place after the door is fitted.

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Table 3.9.1. :
Additional testing requirements for spaces within the cargo area of certain types of vessels

Item No.	Type of vessels	Structure to be tested	Testing requirements	Structural test pressure	Remarks
1	Edible liquid carriers	Independent tanks	Structural testing	Head of water up to the top of overflow without being less than 0.9 [m]	
2.	Chemical carriers	Integral or independent tanks	Structural testing of cargo tanks boundaries from at least on side	The greater of the following : - 1.0 [m] head of water above highest point of tank. - Setting pressure of the safety relief valves, where relevant.	

ANNEXTURE - II

(see rule 18 and sub-rule (6) of rule 19)

Intact Stability Requirements for Vessels operating in Inland Waters

CHAPTER - 1

Regulation - 1

GENERAL

1. The purpose of this Annexure on Intact Stability is to recommend stability criteria and other measures for ensuring the safe operation of all vessels to minimize the risk to such vessels, to the personnel on board and to the environment.

2. Application

2.1 This Code contains intact stability criteria for the following types of vessels
- Cargo vessels
- Cargo vessels carrying timber deck cargo
- Cargo vessels carrying grain in bulk
- Passenger vessels
- Pontoons
- Cargo vessels carrying containers on deck and container vessels

2.2 The requirements for vessels of novel design or vessels not otherwise covered' shalt be specially considered.

3 Definitions

For the purpose of this Annexure the definitions given hereunder apply. For terms used, but not defined herein, the definitions as given in Chap. 1 apply.

01 An air-cushion vehicle is a craft such that the whole or a significant part of its weight can be supported, whether at rest or in motion, by a continuously generated cushion of air dependent for its effectiveness on the proximity of the surface over which the craft operates.

02 A hydrofoil boat is a craft which is supported above the water surface in normal operating conditions by hydrodynamic forces generated on foils.

03 A side wall craft is an air-cushion vehicle whose waits extending along the sides are permanently immersed hard structures.

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04. A container vessel means a vessel which is used primarily for the transport of marine containers.

CHAPTER 2

Regulation 1

Stability booklet

1. Stability data and associated plans should be drawn up in the working language of the vessel and any other language the Administration may require. All translations of the stability booklet should be approved.

2. Each vessel should be provided with a stability booklet, approved by the Administration, which contains sufficient information to enable the master to operate the vessel in compliance with the applicable requirements contained in this Annexure. The Administration may have additional requirements. The stability booklet may include information on longitudinal strength, where required. This Annexure addresses only the stability-related contents of the booklet.

3. The format of the stability booklet and the information included will vary dependent on the vessel type and operation. In developing the stability booklet, consideration should be given to including the following information:

01. A general description of the vessel;

02. Instructions on the use of the booklet;

03. General arrangement plans showing watertight compartments, closures, vents, downflooding angles, permanent ballast, allowable deck loadings and freeboard diagrams;

04. Hydrostatic curves or tables and cross curves of stability calculated on a free-trimming basis, for the ranges of displacement and trim anticipated in normal operating conditions;

05. Capacity plan or tables showing capacities and centres of gravity for each cargo stowage space;

06. Tank sounding tables showing capacities, centres of gravity, and free surface data for each tank;

07. Information on loading restrictions, such as maximum KG or minimum GM curve or table that can be used to determine compliance with the applicable stability criteria;

08. Standard operating conditions and examples for developing other acceptable loading conditions using the information contained in the stability booklet .

09. A brief description of the stability calculations done including assumptions;

10. General precautions for preventing unintentional flooding;

11. Information concerning the use of any special cross-flooding fittings with descriptions of damage conditions which may require cross-flooding;

12. Any other necessary guidance for the safe operation of the vessel under normal and emergency conditions;

13. A table of contents and index for each booklet;

14. Inclining test report for the vessel, or:

01. Where the stability data is based on a sister vessel, the inclining test report of that sister vessel along with the lightship measurement report for the vessel in question; or

02 Where lightship particulars are determined by other methods than from inclining of the vessel or its sister, a summary of the method used to determine those particulars;

15. Recommendation for determination of vessel's stability by means of an in-service inclining test.

16. If permanent ballast is used, its location and weight should be noted in the vessel's stability booklet, it should be located such that it does not shift during the normal operation of the vessel. Permanent ballast should not be removed from the vessel or relocated within the vessel without the approval of the Administration.

4. As an alternative to the stability booklet mentioned, a simplified booklet in an approved form containing sufficient information to enable the master to operate the vessel in compliance with the applicable provisions of the Annexure as may be provided at the discretion of the Administration concerned.

Regulation - 2

General precautions against capsizing

1. Compliance with the stability criteria does not ensure immunity against capsizing, regardless of the circumstances, or absolve the master from his responsibilities. Masters should therefore exercise prudence and good seamanship having regard to the season of the year, weather forecasts and the navigational zone and should take the appropriate action as to speed and course warranted by the prevailing circumstances.

2. Care should be taken that the cargo allocated to the vessel is capable of being stowed so that compliance with the criteria can be achieved. If necessary, the amount should be limited to the extent that ballast weight may be required.

3. Before a voyage commences, care should be taken to ensure that the cargo and sizeable pieces of equipment have been properly stowed or lashed so as to minimize

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the possibility of both longitudinal and lateral shifting, while at sea, under the effect of acceleration caused by rolling and pitching.

4 A vessel, when engaged in towing operations, should possess an adequate reserve of stability to withstand the anticipated heeling moment arising from the tow line without dangering the towing vessel. Deck cargo on board the towing vessel should be so positioned as not to endanger the safe working of the crew on deck or impede the proper functioning of the towing equipment and be properly secured. Towline arrangements should include towing springs and a method of quick release of the tow.

5 The number of partially filled or slack tanks should be kept to a minimum because of their adverse effect on stability.

6 The stability criteria contained in chapter 3 set minimum values, but no maximum values are recommended. It is advisable to avoid excessive values of metacentric height, since these might lead to acceleration forces which could be prejudicial to the vessel, its complement, its equipment and to safe carriage of the cargo. Slack tanks may, in exceptional cases, be used as a means of reducing excessive values of metacentric height. In such cases, due consideration should be given to sloshing effects.

7 Regard should be paid to the possible adverse effects on stability where certain bulk cargoes are carried.

Regulation 3

Operational procedures before and in heavy weather

1. All doorways and other openings through which water can enter into the hull or deckhouses, forecastle, etc., should be suitably closed in adverse weather conditions and accordingly all appliances for this purpose should be maintained on board and in good condition.

2. Weathertight and watertight hatches, doors, etc., should be kept closed during navigation, except when necessarily opened for the working of the vessel and should always be ready for immediate closure and be'clearjy marked to indicate that these fittings are to be kept closed except for access. Hatch cover and flush deck scuttles in fishing vessels should be kept properly secured when not in use during fishing operations. All portable deadlights should, be maintained in good condition and securely closed in bad weather.

3. Any closing devices provided for vent pipes to fuel tanks should be secured in bad weather.

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4. In all conditions of loading necessary care should be taken to maintain the minimum freeboard.

Chapter 3

General Intact Stability Criteria for All Vessels

1. The following general criteria are recommended for passenger and cargo vessels.

- The metacentric height GM should not be less than 0.15 m, for all the vessels.
- Passenger vessels, with 2/3 rd of passengers crowded on one side on the upper most deck, the angle of heel should not exceed 10° and the vessel should have a positive metacentric height.

For the purpose of this Rule the weight of the passenger is to be taken as 65kgs

- The freeboard in case of passenger vessels, should not be less than 760 mm in all conditions of loading.
- The maximum angle of heel of all self propelled vessels during turning at service speed fully loaded on account of turning shall not exceed 10°.

2. Provisions should be made for a safe margin of stability at all stages of the voyage, regard being given to additions of weight, such as those due to absorption of water and to losses of weight such as those due to consumption of fuel and stores.

3. For vessels carrying oil-based pollutants in bulk, the Administration should be satisfied that the criteria given in 3.1 is maintained during all loading and ballasting operations.

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Chapter 4

Regulation 1

Severe wind and rolling criterion (weather criterion)

1. This criterion supplements the stability criteria given in Chapter 3.

2. Weather criterion:

a)The ability of a vessel to withstand the combined effects of beam wind and rolling should be demonstrated for each standard condition of loading, with reference to the figure as follows:

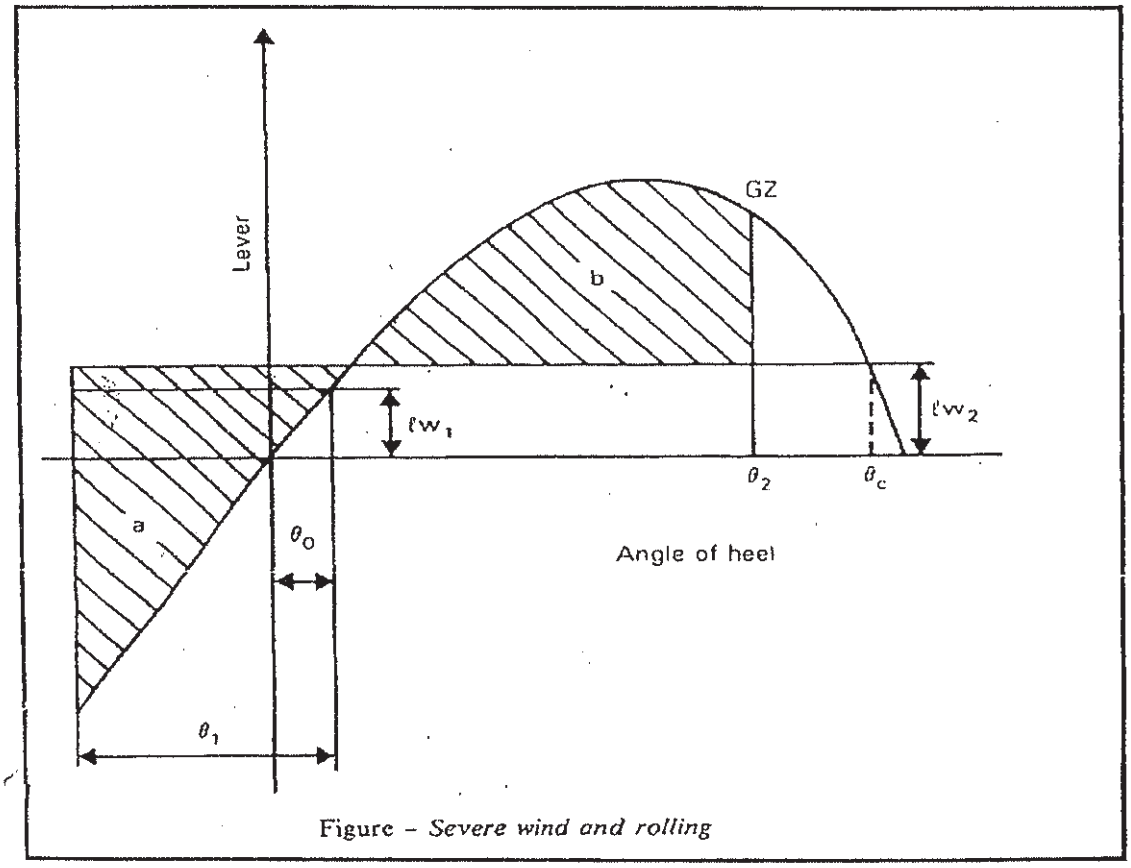


Figure – *Severe wind and rolling*

01. The vessel is subjected to a steady wind pressure acting perpendicular to the vessel's centerline which results in a steady wind heeling lever (1w1).

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02 From the resultant angle of equilibrium (θo), the vessel is assumed to roll owing to wave action to an angle of roll (θ1) to windward. Attention should be paid to the effect of steady wind so that excessive resultant angles of heel are avoided;

03 The vessel is then subjected to a gust wind pressure which results in a gust wind heeling lever (1w2);

04 Under these circumstances, area "b" should be equal to or greater than area "a";

05 Free surface effects should be accounted for in the standard conditions of loading

The angles in the above figure are defined as follows:

θo = angle of heel under action of steady wind

θ1 = angle of roll to windward due to wave action

θ2 = angle of down flooding (qf) or 50° or qc, whichever is less,

where:

θf = angle of heel at which openings in the hull, superstructures or deckhouses which cannot be closed weathertight immerse. In applying this criterion, small openings through which progressive ' flooding cannot take place need not be considered as open.

θc = angle of second intercept between wind heeling lever lw2 and GZ curves.

b) The wind heeling levers lw1and lw2 referred above are constant values at all angles of inclination and should be calculated as follows:

lw1 = (P.A.Z / 1000gD) (m) and

lw2 = 1.5 lw1 (m)

where:

P = wind pressure of 504 Pa. The value of P used for vessels in restricted service may be reduced subject to the approval of the Administration;

A = projected lateral area of the portion of the vessel and deck cargo above the waterline (m^2)

Z = vertical distance from the centre of A to the centre of the underwater lateral area or approximately to a point at one half the mean draught (m);

D = displacement (t)

g = gravitational acceleration of 9.81 m/s2

c) The angle of roll (q1) referred to should be calculated as follows:

q1 = 109k.X1.X2(r.s) 1/2 (degrees)

where:

X1 = factor as shown in table 1

X2 = factor as shown in table 2

k = factor as follows:

k = 1.0 for round-bilged vessel having no bilge or bar keels

k = 0.7 for a vessel having sharp bilges

k = as shown in table 3 for a vessel having bilge keels, a bar keel or both

r = 0.73 ± 0.6 OG/d

with:

OG = distance between the centre of gravity and the waterline (m) (+ if centre of gravity is above the waterline, - if it is below)

d = mean moulded draught of the vessel (m)

s = factor as shown in table 4.

Table 1

Values of factor X1

B / d	X1
2.4	1.00
2.5	0.98
2.6	0.96
2.7	0.95
2.8	0.93
2.9	0.91
3.0	0.90
3.1	0.88
3.2	0.86
3.3	0.84
3.4	0.82
3.5	0.80

Table 2

Values of Factor X2

CB	X2
< 0.45	0.75
0.50	0.82
0.55	0.85
0.60	0.95
0.65	0.97
> 0.70	1.00

Table 3

Values of factor k

(Ak.100 / LB)	k
0	1.0
1.0	0.98
1.5	0.95
2.0	0.88
2.5	0.79
3.0	0.74
3.5	0.72
4.0	0.70

Table 4

Values of Factor S

T	S
6	0.100
7	0.098
8	0.93
12	0.065
14	0.053
16	0.044
18	0.038
20	0.035

(Intermediate values in table 1 – 4 should be obtained by linear interpolation).

Rolling period T=(2C B / (GM) 1 / 2) (seconds)

where:

C = 0.373 + 0.023 (B/d) - 0.043 (L / 100).

The symbols in the above tables and formula for the rolling period are defined as follows:

L = length of the vessel at waterline (m)

B = moulded breadth of the vessel (m)

d = mean moulded draught of the vessel (m)

CB = block coefficient

Ak = total overall area of bilge keels, or area of the lateral projection of the bar keel, or Sum of these areas (m2)

GM = metacentric height corrected for free surface effect (m).

Regulation 2

Standard loading conditions to be examined

1 Loading conditions: The standard loading conditions referred to in the text are as follows:

01. For a passenger vessel:

01. Vessel in the fully loaded departure condition with full stores and fuel and with the full number of passengers with their luggage;

02. Vessel in the fully loaded arrival condition, with full number of passengers and their luggage but with only 10% stores and fuel remaining;

03. Vessel without cargo, but with full stores and fuel and the full number of passengers and their luggage;

04. Vessel in the same condition as at .03 above with only 10% stores and fuel remaining.

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02 For a cargo vessel:

01 Vessel in the fully loaded departure condition, with cargo homogeneously distributed throughout all cargo spaces and with full stores and fuel;

02 Vessel in the fully loaded arrival condition with cargo homogeneously distributed throughout all cargo spaces and with 10% stores and fuel remaining;

03 Vessel in ballast in the departure condition, without cargo but with full stores and fuel;

04 Vessel in ballast in the arrival condition, without cargo and with 10% stores and fuel remaining.

03 For a cargo vessel intended to carry deck cargoes:

01 Vessel in the fully loaded departure condition with cargo homogeneously distributed in the holds and with cargo specified in extension and mass on deck, with full stores and fuel;

02 Vessel in the fully loaded arrival condition with cargo homogeneously distributed in holds and with a cargo specified in extension and mass on deck, with 10% stores and fuel.

2 A mass of 65 kg should be assumed for each passenger except that this value may be reduced to not less than 60 kg where this can be justified. In addition, the mass and distribution of the luggage should be determined by the Administration.

3 The height of the centre of gravity for passengers should be assumed equal to:

- 1.0 m above deck level for passengers standing upright. Account may be taken, if necessary, of camber and sheer of deck;

- 0.30 m above the seat in respect of seated passengers.

4 Passengers and luggage should be considered to be in the spaces normally at their disposal.

Passengers without luggage should be considered as distributed to produce the most unfavourable combination of passenger heeling moment and / or initial metacentric height, which may be obtained in practice, when assessing compliance with the

Criteria given in chapter 3. In this connection, it is anticipated that value higher than four person per square – metre will not be necessary.

Chapter 5

Sub Division and Number of bulkheads

1. The requirements of the bulkheads are as follows :

a) **Cargo vessels :** The number and allocation of bulkheads are to be as per Annexure 1.

b) **Passanger vessels :** The number of bulkheads are to be as follows :

Length	Machinery Aft	Machinery elsewhere
15 < L > 30	3	3
L > 30	3	4

Location of collision bulkhead is to within the limits specified in Annexure 1.

c) Pontons : Minimum number of bulkheads is to be based on the damaged stability calculations to the satisfaction of the Administration.

ANNEXTURE - III

(see sub-rule (9) of rule 19)

Determination of Lightship Displacement and Centres of Gravity and Guidance information for conducting Inclining Experiment

Chapter 1
Regulation - 1
Application

1 Every vessel, passenger or cargo should be inclined upon its completion and the elements of its stability determined.

2 Where any alterations are made to a vessel so as to materially affect the stability, the vessel should be re-inclined.

3 At periodic intervals not exceeding (we years, a lightweight survey should be carried out on all passenger vessels to verify any changes in lightship displacement and longitudinal centre of gravity.
The vessel should be re-inclined whenever, in comparison with the approved stability information, deviation from the lightship displacement exceeding 2% or a deviation of the longitudinal centre of gravity exceeding 1% of L is found, or anticipated.

4 The Administration may allow the inclining test of an individual vessel to be dispensed with provided basic stability data are available from the inclining test of a sister vessel and it is shown to the satisfaction of the Administration that reliable stability information for the exempted vessel can be obtained from such basic data.

5 The Administration may allow the inclining test of an individual vessel or class of vessels especially designed for the carriage of liquids or ore in bulk to be dispensed with when reference to existing data for similar vessels clearly indicates that due to the vessel's proportions and arrangements more than sufficient metacentric height will be available in all probable loading conditions.

Chapter 2
Definitions

For the purpose of this Annexure, unless expressly provided otherwise:

1 Certification of the test weights is the verification of the weight marked on a test weight. Test weights should be certified using a certificated scale. The weighting should be performed close enough in time to the inclining test to ensure the measured weight is accurate.

2 Draught is the vertical distance from the moulded baseline to the waterline.

3 The inclining test involves moving a series of known weights, normally in the transverse direction, and
Information and applying basic naval architecture principles, the vessers vertical centre of gravity (VCG) is determined.

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4. Lightship condition is a vessel complete in all respects, but without consumables, stores, cargo, crew and effects, and without any liquids on board except that machinery and piping fluids, such as lubricants and hydraulics, are at operating levels.

5. A lightweight survey involves taking an audit of all items which should be added, or relocated on the vessel at the time of the inclining test so that the observed condition of the vessel can be adjusted to the lightship condition. The weight, longitudinal, transverse and vertical location of each item should be accurately determined and recorded. Using this information, the static waterline of the vessel at the time of the inclining test as determined from measuring the freeboard or verified draught marks of the vessel, the vessel's hydrostatic data, and the sea water density, the lightship displacement and longitudinal centre of gravity (LCG) can be obtained. The transverse centre of gravity (TCG) may also be determined for vessels which are asymmetrical about the centreline or whose internal arrangement or outfitting is such that an inherent list may develop from off-centre weight.

Chapter - 3
Regulation - 1
Preparations for the Inclining Test

1 **Notification of the Administration**

Written notification of the inclining test should be sent to the Administration as it requires or in due time before the test. An Administration representative should be present to witness the inclining test and the test results are submitted for review.

The responsibility for making preparations, conducting the inclining test and lightweight survey, recording the data, and catenating the results rests with the shipyard, owner or naval architect. While compliance with the procedures outlined herein will facilitate an expeditious and accurate inclining test, it is recognized that alternative procedures or arrangements may be equally efficient. However, to minimize risk of delay, it is recommended that all such variances be submitted to the Administration for review prior to the inclining test.

01 **Details of notification**

Written notification should provide the following information as the Administration may require:

1 identification of the vessel by name and shipyard hull number, if applicable;
2 date, time, and location of the test;
3 inclining weight data:
 1 type;
 2 amount (number of units and weight of each);
 3 certification;
 4 method of handling (i.e. sliding rail or crane);
 5 anticipated maximum angle of heel to each side;

4 **measuring devices:**
- 1 pendulums - approximate location and length;
- 2 U-tubes - approximate location and distance between legs;
- 3 inclinometers - location and details of approvals and calibrations.

5 approximate trim;
6 condition of tanks;
7 estimated weights to deduct, to complete, and to relocate in order to place the vessel in its true lightship condition;
8 detailed description of any computer software to be used to aid in calculations during the, inclining test;
9 name and phone number of the person responsible for conducting the inclining test.

Regulation 2
General condition of the vessel

1 A vessel should be as complete as possible at the time of the inclining test. The test should be scheduled to minimize the disruption in the vessel's delivery date or its operational commitments.

2 The amount and type of work left to be completed (weights to be added) affect the accuracy of the lightship characteristics, so good judgment should be used. If the weight or centre of gravity of an item to be added cannot be determined with confidence, it is best to conduct the inclining test after the item is added.

3 Temporary material, tool boxes, staging, sand, debris, etc., on board should be reduced to absolute minimum before the inclining test. Excess crew or personnel not directly involved in the inclining test should be removed from on board the vessel before the test.

4 Decks should be free of water. Water trapped on deck may shift and pocket in a fashion similar to liquids in a tank. Any rain, snow or ice accumulated on the vessel should be removed prior to the test.

5 The anticipated liquid loading for the test should be included in the planning for the test. Preferably, all tanks should be empty and clean, or completely full. The number of stack tanks should be kept to an absolute minimum. The viscosity of the fluid, the depth of the fluid and the shape of the tank should be such that the free surface effect can be accurately determined.

6 The "vessel should be moored in a quiet, sheltered area free from extraneous forces such as propeller wash from passing vessels, or sudden discharges from shore side pumps. The tide conditions and the trim of the vessel during the test should be considered. Prior to die test, the depth of water should be measured and recorded in as many locations as are necessary to ensure that the vessel will not contact the bottom. The specific gravity of water should be accurately recorded. The vessel should be moored in a manner to allow unrestricted heeling. The access ramps should be removed. Power lines, hoses, etc., connected to shore should be at a minimum, and kept slack at all times.

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7 The vessel should be as upright as possible and have sufficient draught so that any abrupt changes in the water plane will be avoided as the vessel is inclined from side to side. A deviation from design trim of up to 1% of L is normally acceptable when using hydrostatic data calculated at design trim. Otherwise, the hydrostatic data should be calculated for the actual trim. Caution should be exercised when applying the "1% rule of thumb" to ensure that excessive error, as would result from a significant change in the water plane area during heeling, is not introduced into the stability calculations. With inclining weights in the initial position, up to one-half degree of list is acceptable.

8 The total weight used should be sufficient to provide a minimum inclination of one degree and a maximum of four degrees of heel to each side. The Administration may, however, accept a smaller inclination angle for large vessels. Test weights should be compact and of such a configuration that the vertical centre of gravity of the weights can be accurately determined. Each weight should be marked with an Identification number and its weight Re-certification of the test weights should be carried out prior to the inclining. A crane of sufficient capacity and reach, or some other means, should be available during the inclining test to shift weights on the deck in an expeditious and safe manner. Water ballast transfer may be carried out, when it is impractical, to incline using solid weights, if acceptable to the Administration.

9 Two pendulums (minimum) should be used to allow identification of bad readings at any one pendulum station. They should each be located in an area protected from the wind. The pendulums should be long enough to give a measured deflection, to each side of upright, of at least 5 cm. To ensure recordings from individual instruments are kept separate, it is suggested that the pendulums be physically located as far apart as practical. One or more pendulums may be substituted by other measuring devices (U-tubes or inclinometers) at the discretion of the Administration.

10 Efficient two-way communications should be provided between central control and the weight handlers and between centre control and each pendulum station. One person at a central control station should have complete control over all personnel involved in the test

Regulation 3

Plans required

1 The person in charge of the inclining test should have available a copy of the following plans at the time of the inclining test:

01 lines plan;
02 hydrostatic curves or hydrostatic data;
03 general arrangement plan of decks, holds, inner bottoms, etc.;
04 capacity plan showing capacities and vertical and longitudinal centres of gravity of cargo spaces, tanks, etc. When ballast water is used as inclining weights, the transverse and vertical centres of gravity for the applicable tanks, for each angle of inclination, must be available;
05 tank sounding tables;
06 draught mark locations; and
07 docking drawing with keel profile and draught mark corrections (if available).

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Regulation - 4
Test procedure

1 Procedures followed in conducting the inclining test and lightweight survey should be in accordance with the recommendations laid out in Chapter 4.

1 Freeboard/draught readings should be taken to establish the position of the waterline in order-to determine the displacement of the vessel at the time of the inclining test. It is recommended that at least five freeboard readings, approximately equally spaced, be taken on each side of the vessel or that all draught marks (forward, midship and aft) be read on each side of the vessel. Draught/freeboard readings should be read immediately before or immediately after the inclining test.

2 The standard test employs eight distinct weight movements. Movement No.8, a recheck of the zero point, may be omitted if a straight line plot is achieved after Movement No.7. If a straight line plot is achieved after the initial zero and six weight movements, the inclining test is complete and the second check at zero may be omitted. If a straight line plot is not achieved, those weight movements that did not yield acceptable plotted points should be repeated or explained.

2 A copy of the inclining data should be forwarded to the Administration along with the calculated results of the inclining test in an acceptable report format, if required.

3 All calculations performed during the inclining test and in preparation of an inclining test report may be carried out by a suitable computer program. Output generated by such a program may be used for presentation of all or partial data and calculations included in the test report if it is clear, concise, well documented, and generally consistent in form and content with Administration requirements

Regulation 5

Stability test for pontoons

1 An inclining experiment is not normally required for a pontoon, provided a conservative value of the lightship vertical centre of gravity (KG) is assumed for the stability calculations. The KG can be assumed at the level of the main deck although it is recognized that a lesser value could be acceptable if fully documented. The lightship displacement and longitudinal centre of gravity should be determined by calculation based on draught and density readings.

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Chapter 4
DETAILED GUIDELINES FOR CONDUCT OF INCLUDING TEST
Regulation 1
INTRODUCTION

1 This Chapter contains important detailed procedures for conducting an inclining test in order to ensure that valid results are obtained with maximum precision at a minimal cost to owners, shipyards and the Administration. A complete understanding of the correct procedures used to perform an inclining test is imperative in order to ensure that the test is conducted properly and so that results can be examined for accuracy as the inclining experiment is conducted.

2 Free surface and tankage

01 If there are liquids on board the vessel when it is inclined, whether in the bilges or in the tanks, they will shift to the low side when the vessel heels. This shift of liquids will exaggerate the heel of the vessel. Unless the exact weight and distance of liquid shifted can be precisely calculated, the metacentric height (GM) calculated from the inclining test will be in error. Free surface should be minimized by emptying the tanks completely and making sure all bilges are dry; or by completely filling the tanks so that no shift of liquid is possible. The latter method is not the optimum because air pockets are difficult to remove from between structural members of a tank, and the weight and centre of the liquid in a full tank should be accurately determined in order to adjust the lightship values accordingly. When tanks must be left slack, it is desirable that the sides of the tanks be parallel vertical planes and the tanks be regular in shape, (i.e. rectangular, trapezoidal, etc.) when viewed from above, so that the free surface moment of the liquid can be accurately determined.

Free surface correction is independent of the height of the tank in the vessel, location of the tank, and direction of heel. As the width of the tank increases, the value of free surface moment increases by the third power. The distance available for the liquid to shift is the predominant factor. This is why even the smallest amount of liquid in the bottom of a wide tank or bilge is normally unacceptable and should be removed prior to the inclining experiment. Insignificant amounts of liquids in V-shaped tanks or voids (e.g. a chain locker in the bow), where the potential shift is negligible, may remain if removal of the liquid would be difficult or would cause extensive delays.

When ballast water is used as inclining weight, the actual transverse and vertical movements of the liquid should be calculated taking into account the change of heel of the vessel. Free surface corrections as defined in this paragraph should not apply to the inclining tanks.

02 Pressed up tanks - "Pressed up" means completely full with no voids caused by trim or inadequate venting. Anything less than 100% full, for example the 98% condition regarded as full for operational purposes, is not acceptable. Preferably, the vessel should be rolled from side to side to eliminate entrapped air before taking the final sounding. Special care should be taken when pressing fuel oil tanks to prevent accidental pollution.

03 Empty tanks - It is generally not sufficient to simply pump tanks until suction is lost. Enter the tank after pumping to determine if final stripping with portable pumps or by hand is necessary.

The exceptions are very narrow tanks or tanks where there is a sharp deadrise, since free surface would be negligible. Since all empty tanks should be inspected, all manholes should be open and the tanks well ventilated and certified as safe for entry. A safe testing device should be on hand to test for sufficient oxygen and minimum toxic levels. A certified marine chemist's certificate certifying that all fuel oil and chemical tanks are safe for human entry should be available, if necessary.

2 Mooring arrangements

The importance of good mooring arrangements cannot be over-emphasized. The arrangement selections will be dependent upon many factors. Among the most important are depth of water, wind and current effects. Whenever possible, the vessel should be moored in a quiet, sheltered area free from extraneous forces such as propeller wash from passing vessels, or sudden discharges from shore side pumps. The depth of water under the hull should be sufficient to ensure that the hull will be entirely free of the bottom. The tide conditions and the trim of the vessel during the test should be considered. Prior to the test, the depth of water should be measured and recorded in as many locations as necessary to ensure the vessel will not contact the bottom. If marginal, the test should be conducted during high tide or the vessel moved to deeper water.

01 The mooring arrangement should ensure that the vessel will be free to list without restraint for a sufficient period of time to allow a satisfactory reading of the heeling angle, due to each weight shift, to be recorded.

02 The vessel should be held by lines at the bow and the stem, attached to bollards and/or cleats on the deck. If suitable restraint of the vessel cannot be achieved using deck fittings, then temporary padeyes should be attached as dose as possible to the centreline of the vessel and as near the % waterline as practical. Where the vessel can be moored to one side only, it is good practice to supplement the bow and stem lines with two spring lines in order to maintain positive control of the vessel. The leads of the spring lines should be as long as practicable. Cylindrical camels should be provided between the vessel and the dock. All lines should be slack, with the vessel free of the pier and camels, when taking readings.

01 If the vessel is held off the pier by the combined effect of the wind and current, a superimposed heeling moment will act on the vessel throughout the test. For steady conditions this will not affect the results. Gusty wind or uniformly varying wind and/or current will cause these superimposed heeling moments to change, which may require additional test points to obtain a valid test The need for additional test points can be determined by plotting test points as they are obtained.

02 If the vessel is pressed against the fenders by wind and/or current, all lines should be slack. The cylindrical camels will prevent binding but there will be an additional superimposed heeling moment due to the vessel bearing against the camels. This condition should be avoided where possible but, when used, consideration should be given to pulling the vessel free of the dock and camels and letting the vessel drift as readings are taken.

03 Another acceptable arrangement is where the combined wind and current are such that the vessel may be. controlled by only one line at either the bow or the stem. In this case, the control line should be led from on or near me centre line of the vessel with all lines but the control line slack, the vessel is free to veer with the wind and/or current as readings are taken. This can sometimes be troublesome because varying wind and/or current can cause distortion of the plot.

3 The mooring arrangement should be submitted to the approval authority for review prior to the test.

4 If a floating crane is used for handling inclining weights, it should not be moored to the vessel.

3. Test weights:

01 Weights, such as porous concrete, that can absorb significant amounts of moisture, should only be used if they are weighed just prior to the inclining test or if recent weight certificates are presented. Each weight should be marked with an identification number and its weight. For small vessels, drums completely filled with water may be used. Drums should normally be full and capped to allow accurate weight control. In such cases, the weight of the drums should be verified in the presence of the Administration representative using a recently calibrated scale.

02 Precautions should be taken to ensure that the decks are' not overloaded during weight movements. If deck strength is questionable then a structural analysis should be performed to determine if existing framing can support the weight.

03 Generally, the test weights should be positioned as far outboard as possible on the upper deck. The test weights should be on board and in place prior to the scheduled time of the inclining test.

4 Pendulums

01 The pendulums should be long enough to give a measured deflection, to each side of upright, of at least 5 centimetres. Generally, this will require a pendulum length of at least 3 metres. It is recommended that pendulum lengths of 4-6 metres be used. Usually, the longer the pendulum the greater the accuracy of the test; however, if excessively long pendulums are used on a tender vessel the pendulums may not settle down and the accuracy of the pendulums would then be questionable. On large vessels with high GM, pendulum lengths in excess of the length recommended above may be required to obtain the minimum deflection. In such cases should be filled with high viscosity oil. If the pendulums are of different lengths, the possibility of collusion between station recorders is avoided.

02 On smaller vessels, where there is insufficient headroom to hang long pendulums, the centimetres deflection should be obtained by increasing the test weight so as to increase the heel. On most vessels the typical inclination is between one and four degrees.

03 The pendulum wire should be piano wire or other monofilament material. The top connection of the pendulum should afford unrestricted rotation of the pivot point. An example is that of washer test washer with the pendulum wire attached suspended from a nail.

04 A trough filled with a liquid should be provided to dampen oscillations of the pendulum after each weight movement. It should be deep enough to prevent the pendulum weight from touching the bottom. The use of a winged plumb bob at the end of the pendulum wire can also help to dampen the pendulum oscillations in the liquid.

05 The battens should be smooth, light-coloured wood, 1 to 2 centimetres thick, and should be securely fixed in position so that an inadvertent contact will not cause them to shift. The batten should be aligned close to the pendulum wire but not in contact with it.

06 The pendulums may be placed in any location on the vessel, longitudinally and transversely. The pendulums should be in place prior to the scheduled time of the inclining test.

07 It is recommended that inclinometers or other measuring devices only be used in conjunction with at least one pendulum. The Administration may approve an alternative arrangement when this is found impractical.

Regulation 2

EQUIPMENT REQUIRED

1 Besides the physical equipment necessary such as the inclining weights, pendulums, small boat, etc., the following are necessary and should be provided by or made available to the person in charge of the inclining:

1. Engineering scales for measuring pendulum deflections (rules should be subdivided sufficiently to achieve the desired accuracy);
2. Sharp pencils for marking pendulum deflections;
3. Chalk for marking the various positions of the inclining weights;
4. A sufficiently long measuring tape for measuring the movement of the weights and locating different items on board;
5. A sufficiently long sounding tape for sounding tanks and taking freeboard readings;
6. One or more well maintained specific gravity hydrometers with range sufficient to cover 0.999 to 1.030, to measure the specific gravity of the water in which the vessel is floating (a hydrometer for measuring specific gravity of less than 1.000 may be needed in some locations);
7. Other hydrometers as necessary to measure the specific gravity of any liquids on board;
8. Graph paper to plot inclining moments versus tangents;
9. A straight edge to draw the measured waterline on the lines drawing;
10. A pad of paper to record data;
11. An explosion proof testing device to check for sufficient oxygen and absence of lethal gases in tanks and other closed spaces such as voids and cofferdams;
12. A thermometer; and
13. Draught tubes (if necessary).

Regulation 3

TEST PROCEDURE

1 The inclining experiment, the freeboard/draught readings and the survey may be conducted in any order and still achieve the same results, if the person conducting the inclining test is confident

that the survey will show that the vessel is in an acceptable condition and there is the possibility of the weather becoming unfavourable, then it is suggested that the inclining be performed first and the survey last. If the person conducting the test is doubtful that the vessel is complete enough for the test, it is recommended that the survey be performed first since this could invalidate the entire test, regardless of the weather conditions. It is very important that all weights, the number of people on board, etc., remain constant throughout the test.

2 Initial walk through and survey

The person responsible for conducting the inclining test should arrive on board the vessel well in advance of the scheduled time of the test to ensure that the vessel is properly prepared for he test. If the vessel to be inclined is large, a preliminary walk through may need to be one the day preceding the actual incline. To ensure the safety of personnel conducting the walk through, and to improve the documentation of surveyed weights and deficiencies, at least two persons should make the initial walk through. Things to check include: all compartments are open, clean, and dry, tanks are well ventilated and gas free, movable or suspended items are secured and their position documented, pendulums are in place, weights are on board and in place, a crane or other method for moving weights is available, and the necessary plans and equipment are available. Before beginning the inclining test, the person conducting the test should:

01 Consider the weather conditions. The combined adverse effect of wind and current may result in difficulties or even an invalid test due to the following:
1.1 Inability to accurately record freeboards and draughts;
1.2 Excessive or irregular oscillations of the pendulums;
1.3 Variation in unavoidable superimposed heeling moments.
In some instances, unless conditions can be sufficiently improved by moving the vessel to a better location/it may be necessary to delay or postpone the lest. Any significant quantities of rain water should be removed from the vessel before the test.

02 Make a quick overall survey of the vessel to make sure the vessel is complete enough to conduct the test and to ensure that all equipment is in place. An estimate of items which will be outstanding at the time of the inclining test should be included as part of any test procedure submitted to the Administration. This is required so that the Administration representative can advised the shipyard/naval architect if in their opinion the vessel will not be sufficiently complete to conduct the incline and that it should be rescheduled. If the condition of the vessel is not accurately depicted in the test procedure and at the time of the inclining test the Administration representative considers that the vessel is in such condition that an accurate incline cannot be conducted, the representative may refuse to accept the incline arid require that the incline be conducted at a later date;

03 Enter all empty tanks after it is determined that they are well ventilated and gas free to ensure that they are dry and free of debris. Ensure that any pressed up tanks are indeed full and free of air pockets. The anticipated liquid loading for the incline should be included in the procedure required to be submitted to the Administration;

04. Survey the entire vessel to identity all items which need to be added to the vessel, removed from the vessel, or relocated on the vessel to bring the vessel to the lightship condition. Each item should be clearly identified by weight and vertical and longitudinal location. If necessary, the transverse location should also be recorded. The inclining weights, the pendulums, any temporary equipment, dunnage and the people on board during the inclining test are all among the weights to

be removed to obtain the lightship condition. The person calculating the lightship characteristics from the data gathered during the incline and survey and/or the person reviewing the inclining test may not have been present during the test and should be able to determine the exact location of the items from the data recorded and the vessel's drawings. Any tanks containing liquids should be . accurately sounded and the soundings recorded;

4.1 It is recognized that the weight of some items on board, or that are to be added, may have to be estimated. If this is necessary, it is in the best interest of safety to be on the safe side when estimating, so the following rules of thumb should be followed:

4.1.1 When estimating weights to be added:
Estimate high for items to be added high in the vessel.
Estimate low for items to be added low in the vessel.

4.1.2 When estimating weights to be removed:
- Estimate low for items to be removed from high in the vessel.
- Estimate high for items to be removed from low in the vessel.

4.1.3 When estimating weights to be relocated:
- Estimate high for items to be relocated to a higher point in the vessel.
- Estimate low for items to be relocated to a lower point in the vessel.

3 Freeboard/draught readings

1. Freeboard/draught readings should be taken to establish the position of the waterline in order to determine the displacement of the vessel at the time of the inclining test It is recommended that at least five freeboard readings, approximately equally spaced, be taken on each side of the vessel or that all draught marks (forward, mishap, and aft) be read on each side of the vessel. Draught mark readings should be taken to assist in determining the waterline defined by freeboard readings, or to verify the vertical location of draught marks on vessels where their location has not been confirmed. The locations for each freeboard reading should be clearly marked. The longitudinal location along the ";vessel should be accurately determined and recorded since the (moulded) depth at each point will be obtained from the vessel's lines. All freeboard measurements should include a reference note clarifying the inclusion of the coating in the measurement and the coaming height.

2 Draught and freeboard readings should be read immediately before or immediately after the inclining test. Weights should be on board and in place and all personnel who will be on board during the test including those who will be stationed to read the pendulums, should be on board and in location during these readings. This is particularly important on small vessels. If readings are made after the test, the vessel should be maintained in the same condition as during the test. For small vessels, it may be necessary to counterbalance the list and trim effects of the freeboard measuring party. When possible, readings should be taken from a small boat.

3 A small boat should be available to aid in the taking of freeboard and draught mark readings. It should have low freeboard to permit accurate observation of the readings.

4 The specific gravity of the flotation water should be determined at this time. Samples should be taken from a sufficient depth of the water to ensure a true representation of the flotation water and not merely surface water, which could contain fresh water from run off of rain. A hydrometer should be placed in a water sample and the specific gravity read and recorded.

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5. A draught mark reading may be substituted for a given freeboard reading at that longitudinal location if the height and location of the mark has been verified to be accurate by a keel survey while the vessel was in dry dock.

6. The dimensions given on a vessel's lines drawing are normally moulded dimensions. In the case of depth, this means the distance from the inside of the bottom shell to the inside of the deck plate. In order to plot the vessel's waterline on the lines drawing, the freeboard readings should be converted to moulded draughts. Similarly, the draught mark readings should be corrected from extreme (bottom of keel) to moulded (top of keel) before plotting, Any discrepancy between the freeboard/draught readings should be resolved.

7. The mean draught (average of port and starboard reading) should be calculated for each of the locations where freeboard/draught readings are taken and plotted the vessel's lines drawing or outboard profile to ensure that all readings, are consistent and. together define the correct waterline. The resulting plot should yield either a straight line or a waterline which is either hogged or sagged. If inconsistent readings are obtained, the freeboards/draughts should be retaken.

4. The incline

1. Prior to any weight movements the following should be checked:
 - 01 The mooring arrangement should be checked to ensure that the vessel is floating freely. (This should be done just prior to each reading of the pendulums).
 - 02 The pendulums should be measured and their lengths recorded. The pendulums should be aligned so that when the vessel heels, the wire will be close enough to the batten to ensure an accurate reading but will not come into contact with the batten.
 - 03 The initial position of the weights is marked on the deck. This can be done by tracing the outline of the weightsbn the deck.
 - 04 The communications arrangement is adequate. .
 - 05 All personnel are in place.

2. A plot should be run during the test to ensure that acceptable data is being obtained. Typically, the abscissa of the plot will be heeling moment (weight times distance) and the ordinate will be the tangent of the heel angle (deflection of the pendulum divided by the length of the pendulum). This plotted line does not necessarily pass through the origin or any other particular point for no single point is more significant than any other point. A linear regression analysis is often used to fit the straight line. The weight movements give a good spread of points on the test plot.

3. Plotting all of the readings for each of the pendulums during the inclining experiment aids in the discovery of bad readings. Since (W) (x) / tan should be constant, the plotted line should be straight. Deviations from a straight tine are an indication that there were other moments acting on the vessel during the inclining. These other moments should be identified, the cause corrected, and the weight movements repeated until a straight line is achieved. - Figures A- D illustrate examples of how to detect some of these other moments during the inclining, and a recommended solution for each case. For simplicity, only the average of the readings is shown on the inclining plots.

4. Once everything and everyone is in place, the zero position should be obtained and the remainder of the experiment conducted as quickly as possible, while maintaining accuracy and proper procedures, in order to minimize the possibility of a change in environmental conditions during the test.

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5 Prior to each pendulum reading, each pendulum station should report to the control station when the pendulum has stopped swinging. Then, the control station will give a "standby" warning and then a "mark" command. When "mark" is given, the batten at each position should be marked at the location of the pendulum wire. If the wire was oscillating slightly, the centre of the oscillations should betaken as the mark. If any of the pendulum readers does not think the reading was a good one, the reader should advise the control station and the point should be retaken for all pendulum stations. Likewise, if the control station suspects the accuracy of a reading, it should be repeated for all the pendulum stations. Next to the mark on the batten should be written the number of the weight movement, such as zero for the initial position and one through seven for the weight movements.

6 Each weight movement should be made in the same direction, normally transversely, so as not to change the trim of the vessel. After each weight movement, the distance the weight was moved (centre to centre) should be measured and the heeling moment calculated by multiplying the distance by the amount of weight moved. The tangent is calculated for each pendulum by dividing the deflection by the length of the pendulum. The resultant tangents are plotted on the graph. Provided there is good agreement among the pendulums with regard to the tan q value, the average of the pendulum readings may be graphed instead of plotting each of the readings.

7. inclining data sheets should be used so that no data is forgotten and so that the data is clear, concise, and consistent in form and format. Prior to departing the vessel, the person conducting the test and the Administration representative should initial each data sheet as an indication of their concurrence with the recorded data.

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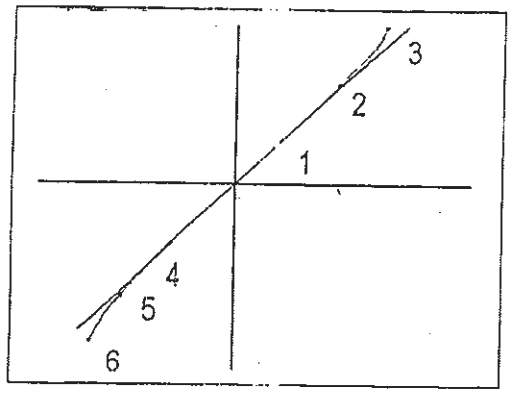


Fig . A
(Excessive Free liquids)

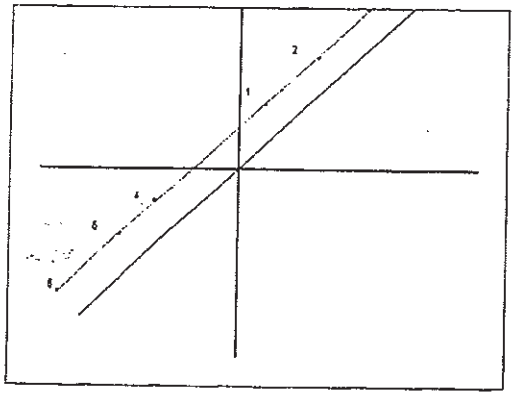


Fig. B
(Vessel touching the bottom or restrained by the mooring lines)

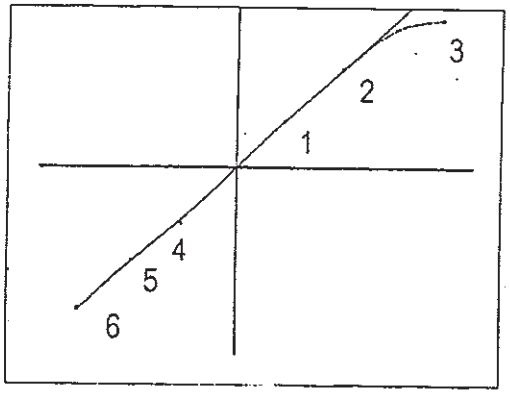


Fig. C
(Steady wind from port side came up after initial zero)

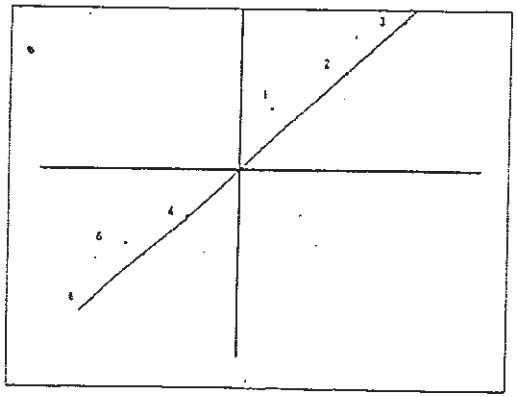


Fig. D
(Gusty winds from port side)

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3.8 Main propulsion shafting

Chapter 8
Spare Gear

Section 1
General

1.1 General
1.2 Table of spare parts

ANNEXTURE – IV

(See rule 21)

Chapter 1

General Requirements for the design and Construction of Machinery

Contents

Section	
1	General
2	Machinery Room Arrangement
3	Trials
4	Certification of Machinery and Components based upon Quality Management Systems

Section 1

General

1.1 Scope

1.1.1 The requirements of this Chapter and those given in Ch.2 to 10 apply to the. construction and installation or main propulsion and auxiliary machinery systems, together with their associated equipment, boilers, pressure vessels and pumping and piping arrangements fined in vessels intended to be classed with IRS.

1.2 Machinery to be constructed under survey

1.2.1 In vessels intended to be built under Special Survey, all important units of equipment are to be surveyed at the manufacturer's works. The workman vessel is to be to the Surveyor's satisfaction and the Surveyor is to be satisfied that the components are suitable for the intended purpose and duty. Examples of such units are:

Main propulsion engines, including their associated gearing, flexible couplings, scavenge blowers and superchargers;

Boilers supplying steam for propulsion or for services essential for the safety of the operation of the vessel in the waterway including superheaters. Economizers desuperheaters, steam receivers. All other boilers having working pressures exceeding 3.5 bar, and having healing surfaces greater than 4.65 [m^2]

- Auxiliary engines of 110 [kW] (150 shp) and over which are the source of power for services essential For safely or for the operation of the vessel.
- Steering machinery.
- Athwartvessel thrust units, their prime movers and control mechanisms:
- All pumps necessary for the safety of vessel, e.g. bilge, ballast, fire pumps, etc.:
- Air compressors, air receivers and other pressure vessels necessary for the operation of main propulsion and essential machinery.
- Alarm and control equipment as detailed in Ch.7; and
- Electrical equipment and electrical propelling machinery as detailed in Ch. 8.

1.3 Extent of survey

1.3 1 The Surveyors are to examine and test the materials and workmanvessel from me commencement of work until the final test of the machinery under full power working conditions. Any defects, etc., are to be indicated as early as possible. On completion, the Surveyors will submit a report and. if this is found to be satisfactory by IRS. a certificate of class will be

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granted and an appropriate notation assigned in accordance with P1.1.

1.4 Departures from the rules

1.4.1 Where it is proposed to depart from the requirements of the Rules, classification society will be prepared to give due consideration to the circumstances of any special case.

1.5 Plans and particulars

1.5.1 Before the work is commenced, plans in triplicate of all machinery items, as detailed in the Ch.2 to 9 giving the requirements for individual systems, are to be submitted for approval. The particulars of (he machinery, including power ratings and design calculations, where applicable, necessary to verify the design, are also to be submitted. Any subsequent modifications are subject to approval before being put in to operation.

1.5.2 The strength requirements for rotating parts of the machinery, as specified in Ch.4 to 8, are based upon strength consideration only and their application does not relieve the manufacturer from the responsibility for the presence of dangerous vibrations in the installation at speeds within the operating range.

1.6 Availability of machinery for operation

1.6.1 The design and arrangement is to be such that the machinery can be started and controlled on board vessel without external aid, so that operating conditions can be maintained under all circumstances.

1.7 Ambient reference conditions

1.7.1 The rating of the main and auxiliary machinery is to be suitable for the temperature conditions associated with the geographical limits of the restricted service.

1.7.2 Machinery installations are to be designed such as to ensure proper operations under the conditions as under:
- Permanent list of 10"
- Permanent trim of 5-

1.8 Power ratings

1.8.1 In the following Chapters, where the dimensions of any particular component are determined from shaft power, P in [kW] (H, in shp). and revolutions per minute, R, the values to be used are to be derived from the following :
- For main propelling machinery, the maximum shaft power and corresponding revolutions per minute giving the maximum torque for which the machinery is to be classed; and
- For auxiliary machinery, the maximum continuous shaft power and corresponding revolutions per minute which will be used in service.

1.9 Units

1.9.1 Units and formulae included in the Rules are shown in SI units followed by metric units in brackets, where appropriate.

1.9.2 Where the metric version of shaft power, i.e. (shp). appears in the Rules, 1 shp is equivalent to 75 [kgf metre/sec] or 0.735 [kW].

1.9.3 Pressure gauges may be calibrated in bar.

where,
1 bar = 0.1 [N/mm^2] = 1.02 [kgf/cm^2]

1.10 Power conditions for generator sets

1.10.1 Auxiliary engines coupled to electrical generators are to be capable under service conditions of developing continuously the power to drive the generators at full rated output and, if developing for a short period (15 minutes) an overload power of not less than 10 per cent.

1.10.2 Engine builders are to satisfy the Surveyors by tests on individual engines that the above requirements, as applicable, can be complied with, due account being taken of the deference between the temperature under lest conditions and those specified in 1.7.1. Alternatively, where it is not practicable to lest the engine/generator set as a unit, type tests (e.g. against a brake) representing a particular size and range of engines may be accepted. With oil engines any fuel stop fitted is to be set to permit the short period overload power of not less than 10 per cent above full rated output being developed.

1.11 Fuel

1.11.1 The (lash point (closed cup test) of oil fuel is to be not less than 55°C. unless specially approved. 1.11.2 Fuels with flash points lower than 55°C, but not less than 43°C, unless specialty approved, may be used in vessels

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intended for service restricted to certain geographical limits, where it can be ensured that the. temperature of the machinery spaces will always be 10°C below the flash pint of the fuel. In such cases, safety precautions and the arrangements for storage and pumping will be specially considered.

1.12 Astern Power

1.12.1 Sufficient astern power is to be provided to maintain control of the vessel in all normal circumstances.

Section 2

Machinery Room Arrangements

2.1 General

2.1.1 The machinery is to be so designed, installed and protected that rjsks of fire, explosions, accidental pollution, leakages and-accidents thereof, and accidents to personnel working in machinery spaces will be minimised.

2.1.2The design and arrangement of machinery foundations, shaft connections, piping and ducting is to take into account the effects of thermal expansion, vibrations, misalignment and hull interaction to ensure operation within safe limits. Bolts and nuts exposed to dynamic forces and vibrations are to be properly secured.

2.2 Accessibility

2.2.1 Accessibility, for attendance and maintenance put poses, is to be provided for machinery plants.

2.3 Fire protection

2.3.1 All surfaces of machinery where the surface temperature may exceed 220°C and where impingement of flammable liquids may occur are to be effectively shielded to prevent ignition. Where insulation covering these surfaces is oil absorbing or may permit penetration of oil, the insulation is to be encased in steel or equivalent.

2.3.2 Flammable or oil absorbing materials are not to be used in floors, gratings, etc. in boiler and engine rooms, shaft tunnels or in compartments where settling lanks are installed.

2.4 Ventilation

2.4.1 All spaces, including engine and cargo pump spaces, where flammable or toxic gases or vapours may accumulate, are to be provided with adequate ventilation under all conditions.

2.5 Communications

2.5.1 At least one independent means of communication is to be provided between the bridge and engine room control station.

Section 3

Trials

3.1 General

3.1.1 Tests of components and trials of machinery, as detailed in the Chapters giving the requirements for individual systems are to be carried out the satisfaction of the Surveyors.

3.2 Trials

3.2.1 For all types of installations, the trials are to be of sufficient duration, and carried out under normal maneuvering conditions, to prove the machinery under power. The trials are also to demonstrate that any vibration which may occur within the operating speed range is acceptable. 3.2.2 The trials are to include demonstrations of the following.

- The adequacy of the starling arrangements to provide the required number of starts of the main engines;
- The ability of the machinery to reverse the direction of thrust of the propeller in sufficient lime, under normal maneuvering

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Conditions, and so bring the vessel to rest from maximum ahead rated speeds

3.2.3 Where controllable pitch propellers are fitted, the Tree route astern trial is to be carried out with the propeller blades set in full pitch astern position. Where emergency manual pitch setting facilities are provided, their operation is to be demonstrated to the satisfaction of the Surveyors.

3.2.4. All trials are to be to Surveyor's satisfaction.

Section 4

Certification of Machinery and Components based upon Quality Management Systems

4.1 General

4.1.1 This certification scheme is applicable to works where the employment of quality control procedures is well established. Classification society will have to be satisfied that the practices employed will ensure that the quality of finished products is to the standards which would be demanded when using traditional survey procedures.

4.1.2 Classification society will consider proposed designs (or compliance with the Rules, or other appropriate requirements, and the extent to which the manufacturing processes and control procedures ensure conformity of the product to the design. A comprehensive survey will be made by the Surveyors of the actual operation of the qualify control programme and of the adequacy and competence of the staff to implement it.

4.1.3 Where classification society considers that the requirements of 4.1.2 can be satisfactorily complied with, the manufacturers will in general, be approved and authorised to inspect and certify their products.

4.1.4 The procedures and practices of manufacturer which have been granted approval will be kept under continuous review.

4.1.5 Approval by another organization will not normally be acceptable as sufficient evidence that a manufacturer's arrangements comply with class requirements.

4.2 Requirements for approval

4.2.1. The manufacturer is required to have adequate equipment and facilities for those operations appropriate to the level of design, development and manufacture being undertaken.

4.2.2 The manufacturer shall demonstrate that the firm has experience consistent with technology and complexity of the product for which approval is sought and that firm's products have been of a consistently high standard.

4.2.3 The manufacturer should have implemented quality management systems generally in accordance with the ISO 9000 series of standards.

4.2.4 The manufacturer shall establish and maintain procedures and controls to ensure that class requirements for certification of materials and components at sub-contractor's works are complied with to the satisfaction of classification society.

4.3 Information required for approval

4.3.1 Manufacturers applying for approval under this scheme are lo submit the following information:

- Description of the products for which certification is required including, where applicable, model or type number;
- Applicable plans and details of materials used;
- An outline description of ail important manufacturing plant and equipment;
- A summary of equipment used for measuring and testing during manufacturing and completion;

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- The quality manual:
- The system used for identification and traceability;
- Number and qualification of personnel engaged in quality control and quality assurance; and
- A list of suppliers of materials and components and proposed arrangements to ensure compliance with class requirements for certification.

4.4. Approval and maintenance of approval

4.4.1 After receipt and appraisal of the information required by 4.3. an assessment of the Works would be carried out by the Surveyors to ensure compliance with the quality manual.

4.4.2. If the initial assessment of the Works confirms that the implementation of the quality management systems is satisfactory, classification society will issue to the manufacturer a Quality Assurance Approval Certificate which will include details of the products for which approval has been given:

4.4.3 An extension of approval in respect of product type may be given at the discretion of classification society without any additional assessment.

4.4.4 The certificate will be valid for 3 years subject to surveillance assessments being carried out every 6 months.

4.4.5 When significant faults or deficiencies are found during surveillance assessments or surveillance assessments are not carried out. the certificate of approval may be withdrawn / suspended at the discretion of classification society.

4.5 Certification of products

4.5.1 After issue of the Quality Assurance Approval Certificate. the manufacturer would be authorized to issue certificate for products on behalf of classification society subject to the certificates being countersigned by classification society Surveyors. Arrangements for this will be specially advised by classification society.

End of Chapter

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Chapter 2

Piping Design Requirements

Contents

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1	General
2	Carbon and Low Alloy Steel Pipes and Fittings.
3	Copper and copper alloy pipes and fittings
4	Cast Iron Pipes and Fittings
5	Plastic Pipes
6	Flexible Hoses
7	Hydraulic Tests on Pipes and Fittings

Section 1

General

1.1 Scope

1.1.1 The requirements of this Chapter apply to the design and construction of piping systems. including pipe fillings forming parts of such systems but excluding steam piping systems and systems where the temperature exceeds 300°C.

1.1.2 For steam piping systems and systems having temperatures greater than 300°C, the Rules and Regulations for the Construction & Classification of Steel Vessels will be applicable.

1.2 Classes of pipes

1.2.1 For the purpose of testing, type of joints to be adopted, heat treatment and welding procedure, piping systems are divided into three classes, as given in Table 1.2.1.

1.2.2 For. Class I piping, the Rules and Regulations for the Construction & Classification of Steel fesse/swill be applicable.

1.2.3 In addition to the pressure piping systems;" in Table 1.2.1. Class III pipes may be used for open ended piping, e.g. overflows, vents, boiler waste steam pipes, open ended drains etc.

1.3 Design pressure

1.3.1. The design pressure. P. is the maximum permissible working pressure and is to be not less than the highest set pressure of the safety valve or relief valve.

1.3.2. The design pressure of feed piping and other piping on the discharge from pumps is to be taken as the pump pressure at full rated speed against a shut valve. Where a safety valve or other protective device is fitted to restrict the pressure to a lower value than the shut valve load, the design pressure is to be the highest set pressure of the protective device.

Table 1.2.1 Classes of piping systems

Piping system	Class I	Class II	Class III
Fuel Oil	P > 16 or T > 150	P ≤ 16 and T ≤ 150	P ≤ 7 and T ≤ 60
Other media 6	P > 49 or T > 300	P ≤ 40 and T ≤ 300	P ≤ 16 and T ≤ 200

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1.4 Design temperature

1.4.1 The design temperature is to be taken as the maximum temperature of the internal fluid, but in no case is it to be less than 50°C.

1.5 Design symbols

1.5.1 The symbols used in this Chapter are defined as follows:

a = percentage negative manufacturing tolerance on thickness;

b = bending allowance [mm];

c = corrosion allowance [mm];

D = outside diameter of pipe [mm] (see 1,5,2);

d = inside diameter of pipe [mm] (see 1.5.3);

e = weld efficiency factor (see 1.5.4);

P = design pressure, in [N/mm^2];

Pt = hydraulic test pressure, in [N/mm^2];

R - radius of curvature of a pipe bend at the centreline of the pipe [mm];

T = design temperature. in C°;

t = the minimum thickness of a straight pipe [mm] including corrosion allowance and negative tolerance, where applicable:

t_b, = the minimum thickness of a straight pipe to be used for a pipe bend [mm] including bending allowance, corrosion allowance and negative tolerance, where applicable;

σ = maximum permissible design stress, in [N/mm^2].

1.5.2 The outside diameter, D, is subject to manufacturing tolerance, but these are not to be used in the evaluation of formulae.

1.5.3 The inside diameter, d, is not to be confused with nominal size, which is an accepted designation associated with outside diameters of standard rolling sizes.

1.5.4 The weld efficiency factor, e, is to be taken as 1.0 for seamless and electric resistance and induction welded steel pipes. Where other methods of pipe manufacture are proposed, the value of e will be specially considered.

1.6 Heat treatment

1.6.1 Method of heat treatment and means of temperature control and recording are to be to the satisfaction of Surveyors.

Section 2

Carbon and Low Alloy Steel Pipes and Fittings

2.1 Materials

2.1.1 Materials for Class I and Class II piping systems, also for vessel-side valves and fittings and valves on the collision bulkhead, ate to be manufactured and tested in accordance with the appropriate requirements of Ch.d, Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels.

2 1 2 Materials for Class 111 piping systems may be manufactured and lasted in accordance with the requirements of acceptable national / international specifications. Pipes having forge butt welded longitudinal seams are not to be used for oil fuel systems, for heating coils in oil tanks, or for pressures exceeding 0.4 [N/mm^3]. The manufacturer's test certificate will be acceptable and is to be provided for each consignment of material.

2.2 Minimum thickness of steel pipes and bends

2.2.1 The maximum permissible design stress, σ, is to be taken as the lowest of the following values:-

$$\sigma = \frac{Et}{1.6} \text{ or } \sigma = \frac{R_{20}}{2.7} \text{ or } \sigma = \frac{S_R}{1.6}$$

where.

Et = specified minimum lower yield or 0.2 per cent proof stress at the design temperature.

R_{20} = specified minimum tensile strength at ambient temperature,

S_R = average stress to produce rupture in 100.000 hours at the design temperature.

Table 2.2.1. : Carbon and Carbon-managanese steel pipes : Maximum permissible stress [N/mm^2]					
Design Temp. °C	Specified minimum tensile strength [N/mm^2]				
	320	360	410	460	490
50	107	120	136	151	160
100	105	117	131	146	156
150	99	110	124	139	148
200	92	103	117	132	141
250	78	91	106	122	131
300	62	76	93	111	121

2.2.2 The minimum thickness, t, of straight steel pipes is to be determined by the following formula :-

$$t = \left(\frac{PD}{20\sigma e + P} + C\right)\frac{100}{100 - a}[mm]$$

where,
P. D, e and a are defined in Sec.1, Cl.1.5.1

σ is defined in 2.2.1 and also obtained from Tables 2,2.1.

c is obtained from Table 2.2.2.

Table 2.2.2. : Values of C for steel pipes	
Piping Service	C [mm] (See note)
Compressed air system	1.0
Hydraulic / Lubricating oil systems	0.3
Fuel oil systems	1.0
Cargo oil systems	2.0
Refrigerating plants	0.3
Fresh water systems	0.8

Note :

For pipes passing though tanks an additional corrosion allowance is to be considered according to the figures given in Table and depending upon the external medium in order to account for the external corrosion.

2.2.3 The minimum thickness, t_b,of a straight steel pipe to be used for a pipe bend is to be determined by the following formula, except where it can be demonstrated that the use of a thickness less than l_b would not reduce the thickness below t_b at any point alter bending :-

$$t_b = \left(\frac{PD}{20\sigma e + P} + b + c\right)\frac{100}{100 - a}[mm]$$

Where
P, D, R, e, b and a are defined in Sec.1, Cl. 1.5.1;

σ and c are defined in tables 2.2.1 and 2.2.2 respectively;

$$b = \frac{D}{2.5R}\left(\frac{PD}{2\sigma e + P}\right)[mm]$$

In general, R, is to be not less than 3D.

2.2.4 The minimum thickness calculated in accordance with 2.2.2 and 2.2.3 is not to be less than that given in Table 2.2.4. Where the pipes are efficiently protected against corrosion, the thickness may be reduced by not more than 1.0 [mm]. For threaded pipes, where permitted, the thickness is to be measured at the bottom of the threads.

Table 2.2.4. : Minimum pipe thicknesses, t[mm], (see note)		
External diameter D [mm]	Pipes in general	Venting overflow & sounding pipes for structural tanks
10.2 – 12	1.6	-
13.5 – 19.3	1.8	-
20	2	-
21.3 – 25	2	-
26.9 – 33.7	2	-
38 – 44.5	4	4.5
48.3	2.3	4.5
51 – 63.5	2.3	4.5
70	2.6	4.6
76.1 – 82.5	2.6	4.5
88.9 – 108	2.9	4.5
114.3 – 127	3.2	4.5
133 – 139.7	3.9	4.5
152.4 – 168.3	4	4.5
117.8	4.5	5
193.7	4.5	5.4
219.1	4.5	5.9

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244.5 - 273	5	6.3
298.5 – 368	5.6	6.3
406.4 – 457.2	6.3	6.3

2.3 Flange connections

2.3.1 Flanges with their pressure-temperature ratings in accordance with recognized national / international standards will normally be accepted.

2.3.2. Flanges may be cut from plates or may be forged or cast. The material is to be suitable for (he design temperature. Flanges may be attached to the branches by screwing and expanding or by welding. Alternative methods of flange attachment may be accepted provided details are submitted for consideration.

2.3.3. Examples of accepted flanged connections and their uses are given in Fig. 2.3.1 and Table 2.3.1 respectively

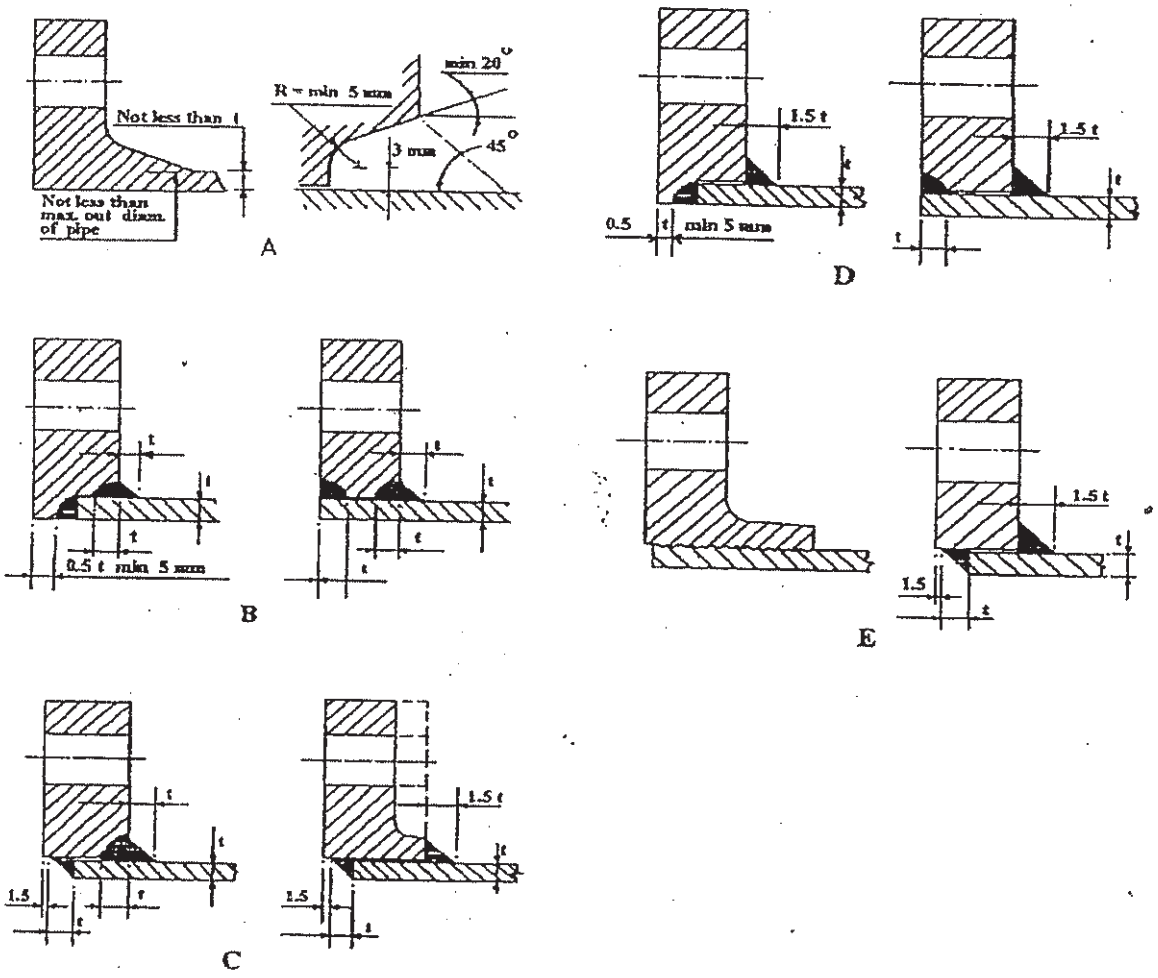


Fig. 2.3.1

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Table 2.3.1. Type of flange connections			
Class of piping	Lub. And fuel oil	Other media	
	Typical flange application	t°C	Typical flange application
II	A – B – C	> 250 ≤ 250	A – B – C A – B – C – D – E
III	A – B – C – E		A – B – C – D – E

2.3.4 Where flanges are secured by screwing as indicated in Fig. 2.3.1, the pipe and flange are to be screwed with a vanishing thread and the diameter of the screwed position of pipe over the thread is not to be appreciably less than the outside diameters of the unscrewed pipe. After the flange has been screwed hard home, the pipe is to be expanded into the flange. The vanishing thread on a pipe is to be not less than three pitches In length, and the diameter at the loot of the thread is to increase uniformly from the standard root diameter to the diameter at the top of the thread. This may be produced by suitably grinding the dies, and the flange should be tapered out to the same formation.

2.4 Threaded sleeve joints

2.4.1 Threaded sleeve joints, in accordance with national or other established standards, may be used with carbon steel pipes within the limits given in Table 2.4.1 and for services other than pipe systems conveying combustible fluids.

Table 2.4.1 : Limiting design conditions for threaded sleeve joints.		
Nominal bore [mm]	Maximum pressure [N / mm^2]	Maximum Temperature °C
≤ 25	1.2	260
> 25 ≤ 40	1.0	260
> 40 ≤ 80	0.85	260
> 80 ≤ 100	0.7	260

2.5 Non-destructive examination of welded pipes

2.5.1 In addition to visual examination of pipe welds by the Surveyors, non-destructive examination of butt and fillet welds is to be carried out in accordance with 2.5.2 to 2.5.4 to the satisfaction of the Surveyors.

2.5.2 Selected butt welds of pipes of outside diameter of 101.6 [mm] and over in Class II piping systems are to be radiographed at Surveyor's discretion. Use of ultrasonic examination in lieu of radiography will be specially considered.

2.5.3 Selected fillet welds in pipes of 101.6 [mm] outside diameter and over in Class II piping systems are to be examined by magnetic particle or liquid penetrate flaw testing at Surveyor's discretion.

2.5.4 Detects in welds are to be rectified and re-examined by the appropriate lest method, all to the satisfaction of the Surveyors.

2.6 Post-weld heat treatment

2.6.1 Carbon and carbon-manganese steel pipes and fabricated branch pieces, manufactured from material having a carbon content not exceeding 0.25 per cent and having a thickness exceeding 30 [mm], are to be given a stress relieving heal treatment on completion of welding. All pipes and branches having a carbon content in excess of 0.25 per cent are to be given a stress believing heat treatment. Where oxy-acetylene welding has been employed, however, all the pipes and branch pieces are to be normalized on completion of welding.

Section 3

Copper and Copper Alloys Pipes and Fittings

3.1. Material

3.1.1. Materials for class II piping systems and vessiside valves and fittings and valves on the collision bulkhead are to be manufactured and

tested in accordance with the requirements of Ch. 8, Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels.

3.1.2 Materials for Class III piping systems are to be manufactured and tested in accordance with the requirements of acceptable national / international specifications. The manufacturer's lest certificate will be acceptable and is to be provided for each consignment of material.

3.1.3 Pipes are to be seamless and branches are to be provided by cast or stamped fittings. pipe pressings or other approved fabrications.

3.1.4 Brazing and welding materials are to be suitable for the operating temperature and for the medium being carried. All brazing and welding are to be carried out to the satisfaction of the Surveyors.

3.1.5 In general, the maximum permissible service temperature of copper and copper alloy pipes, valves and fittings is not to exceed 200°C for copper and aluminium brass, and 300°C for copper nickel. Cast bronze valves and fittings complying with the requirements of Ch.8, Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and classification of Steel Vessels may be accepted up to 260°C.

3.2 Minimum thickness of pipes

3.2.1 The minimum thickness, t, of straight copper and copper alloy pipes is to be determined by the following formula :-

$$t_b = \left(\frac{PD}{20\sigma e + P} + b + c\right)\frac{100}{100 - a}[mm]$$

where P, D and a are as defined in Sec. 1, Cl. 1.5.1. ;

σ = maximum permissible design stress, in [N/mm^2], from Table 3.2.1; Intermediate values of stresses may be obtained by linear interpolation;

c = corrosion allowance;

= 0.8 [mm] for copper, aluminum brass and copper-nickel alloys where the nickel content is less than 10 per cent;

= 0.5 [mm] for copper-nickel alloys where the nickel content is 10 per cent or greater;

= 0 where the media are non-corrosive relative to the pipe material.

Table 3.2.1 : Copper and copper alloy pipes

Pipe material	Condition of supply	Specified min. tensile strength [N/mm^2]	Permissible stress [N / mm^2]					
			Maximum design temperature ^{o}C					
			50	75	100	125	150	175
Copper	Annealed	220	14.2	14.2	40.2	40.2	34.3	27.5
Aluminum brass	Annealed	320	78.5	78.5	78.5	78.5	78.5	51.0
90 / 10 coppe nicket iron	Annealed	270	68.6	68.6	67.7	65.7	63.7	61.8
70 / 30 copper nicket	Annealed	360	81.4	79.4	77.5	75.5	73.5	71.6
			Maximum design temperature ^{o}C					
			200	225	250	275	300	
Copper	Annealed	220	18.6	-	-	-	-	
Aluminium brass	Annealed	320	24.5	-	-	-	-	
90 / 10 copper nicket iron	Annealed	270	58.8	55.9	52.0	48.1	44.1	
70 / 30 copper nicket	Annealed	360	69.6	67.7	65.7	63.7	61.8	

3.2.2 The minimum thickness, t_b. of a straight seamless copper or copper alloy pipe to be used for a pipe bend is to be determined by the formula below, except where it can be demonstrated that the use of a thickness less than t_6 would not reduce the thickness below T at any point after bending :

$$t_b = \left(\frac{PD}{20\sigma e + P} + b + c\right)\frac{100}{100 - a}[mm]$$

where P, D, b and c are defined in Sec.1, Cl.1.5.1, and e and c are defined in 3.2.1

$$b = \frac{D}{2.5R}\left(\frac{PD}{2\sigma e + P}\right)[mm]$$

2.5R In general. R is to be not less than 3D.

Table 3.2.2. : Limiting design conditions for threaded sleeve joints

Standatd pipe sizes (outside diameter) [mm]	Minimum overriding nominal thickness [mm]	
	Copper	Copper alloy
8 to 10	1.0	0.8
12 to 20	1.2	1.0
25 to 44.5	1.5	1.2
50 to 76.1	2.0	1.5
88.9 to 108	2.5	2.0
133 to 159	3.0	2.5
193.7 to 269	3.5	3.0
273 to 457.2	4.0	3.5
508	4.5	4.0

3.2.3 Where Ihe minimum thickness calculated by 3.2.1 or 3.2.2 is less than shown in Table 3.2.2, the minimum nominal thickness for the appropriate standard pipe size shown in the Table is to be used. No allowance is required for negative tolerance or reduction in thickness due to bending on this nominal thickness. For Ihreaded pipes, where permitted, the minimum thickness is to be measured at the bottom of the thread.

3.3 Heat treatment

3.3.1 Pipes which have been hardened by cold bending are to be surtably heat treated on completion of fabrication and prior to being lested by hydraulic pressure. Copper pipes are to be annealed and copper alloy pipes are to be either annealed or stress relief heat treated.

Section 4
Cast Iron Pipes and Fittings

4.1 Spheroidal or nodular graphite cast iron

4.1.1 Spheroidal or nodular graphite iron castings for pipes, valves and finings in Class H and 111 piping systems aie 10 be made in a graae haying a specified minimum elongation not less than 12 per cent on gauge length of 5.65 So, where So is the actual cross-sectional area of the lesl piece.

4.1.2 Castings for Class II and III systems, also for vessel-side valves and fittings and valves on collision bulkhead, are to be manufactured and tested in accordance with the requirements of acceptable national specifications. A manufacturers test certificate will be accepted and re to be picked for each consignment of material.

4.1.3 Where the elongation is less than the minimum required by 4.1.1, the material is, in general, to be subject to the same limitations as grey cast Iron.

4.2 Grey cast iron

4.2.1. Grey cast iron pipes, valves and fittings will, in general, be accepted in Calss III piping systems except as stated in 4.2.2.

4.2.2 Grey cast iron is not to be used for the following:

a) Pipes for steam systems and fire extinguishing systems;

b) Pipes, varves and fittings for boiler below down systems and olher piping systems subject to shock or vibration;

c) Vessel-side valves and fittings;

d) Varves lilted on collision bulkhead;

e) Clean ballast lines through cargo oil tanks to forward ballast tanks;

f) Bilge lines in tanks;

g) Outlet valves of fuel tanks wrth static head.

4.2.3 Grey iron castings for piping systems are to comply with acceptable national / international specifications.

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Section 5

Plastic Pipes

5.1 General

5.1.1 Proposals to use plastics material, in vesselboard piping systems will be consicfered in relation to the properties of the materials, the operating conditions of temperature and pressure, and the intended service. Any proposed service Tor plastics pipe not mentioned in these Rules is to be submitted for special consideration.

5.1.2 The specification of the plastics material, including mechanical and thermal properties and chemical resistance dat3, is to be submitted for consideration.

5.1.3 These requirements are applicable to thermo-plastic pipes but. where appropriate, may also be applied to pipes manufactured in fibre-reinforced thermosetling resins.

5.1.4 Plastics pipes are not to be used where they will be subjected to temperatures above 60°C or below 0°C. Special consideration will be given to particular materials in appropriate applications at higher temperatures.

5.2 Applications

5.2.1 Plastics pipes of approved type may be used for the following services:

a) Air and sounding pipes to tanks used exclusively for carrying waler ballast or fresh water, with the exception of the portion above deck;

b) Sounding pipes to cargo holds;

c) Water ballast and fresh water pipes situated inside tanks used exclusively for carrying water ballast or fresh waler and

d) Scupper pipes draining inboard provided they are not led within the boundaries of refrigerated chambers. The first two Hems (a and b) are not applicable to passenger vessels.

5.2.2. Plastics pipes may be used for domestic and similar services for which there are no Rule requirements, such as for the following:

a) Domestic cold sea and fresh water systems;
b) SanHary systems;
c) Sanitary and domestic waste pipes wholly situated above (he freeboard deck; and
d) Water pipes associated with air conditioning plants,

Not withstanding the foregoing, plastics pipes are not to be used in sea water systems where leakage or failure of the pipes could give rise to the danger of flooding.

5.2.3 Since plastics materials are generally heal sensitive and very susceptible to fire damage. plastics pipes will not be acceptable for service essenlial to safety, such as the following :

a) Fire extinguishing pipes;
b) Bilge pipes in cargo holds;
c) Bilge and ballast pipes in the machinery space;
d) Main and auxiliary water circulating pipes;
e) Feed and condensate pipes; and
f) Pipes carrying oil or other flammable liquids.

5.3 Intactness of bulkheads and decks

5.3.1 Where plastics pipes are arranged to pass through watertight or fire- resisting bulkheads or decks, provision is to be made for maintaining the integrity of the bulkhead or deck in the event-of pipe failure. Details of the arrangements are to be submitted for approval.

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5.3 Design and construction

5.4.1 Pipes and fittings are to be of robust construction and are to comply with the requirements of such national /international standards as may be consistent with their intended use. Particulars of scantlings and joints are to be submitted for consideration.

5.4.2. All pipes are to be adequately but freely supported. Suitable provision for expansion and contraction is to be made in each range of pipes to allow for large movements between plastics pipe and steel structure, the coefficient of thermal expansion for plastics being eight or more times that of steel.

5.4.3 All fittings and branches are to be suitable for the intended service and are to have joints of cemented, flanged or other approved types,

5.4.4. The strength of Ihe pipes and fittings and the acceptability of any jointing system employed is to be check tested at the Surveyor's discretion. The strength of pipes. Mings, joints between pipes and joints between pipes and fittings, as appropriate, is to be determined by hydraulic pressure tests to destruction of sample assemblies. The pressure is to be so applied that failure of the lest sample assembly occurs in not less than 5 minutes. Deformation of the pipes and fittings during tests is acceptable.

Section 6

Flexible Houses

6.1 General

6.1.1 Short joining lengths of flexible hoses of approved type may be used, where necessary to accommodate relative movement between various items of machinery connected to permanent piping systems.

6.1.2 For the purpose of approval for the applications in 6.2, details of the materials and construction of the hoses, and the method of attaching the end fittings, are to be submitted for consideration.

6.1.3 In general, Ihe use of hose clips as a means of securing the ends of hoses ts to be restricted to the engine cooling water system, where the hose consists of a short, straight length joining two metal pipes, between two fixed points on the engine.

6.1.4. Prototype pressure lesls are to be carried out on each new type of hose, complete with end finings, and in no case is the bursting pressure to be less than five times the maximum working pressure in service.

6.1.5 Attenlion is to be given to any statutory requirements of the National Authority of the country in which the vessel is to be registered. Such requirements may include a fire lest for hoses thai are intended to be used in syslems conveying flammable fluids or sea water.

6.2 Applications

6.2.1 Synthetic rubber hoses, with integral cotton or similar braid reinforcement, may be used in fresh and sea water cooling syslems. In the case of sea water systems, where failure of the hoses could give rise to the danger of flooding, the hoses are to be suitably enclosed.

6.2.2. Synthetic rubber hoses, with single or double closely woven integral wire braid reinforcement, or convoluted metal pipes with wire braid protection may be used in bilge, ballast, compressed air fresh water, sea water, fuel oil and lubricating oil syslems. Where synthetic rubber hoses are used for fuel oil supply to burners, the hoses are to have external wire braid proleclion in addition to the integral wire braid.

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Section 7

Hydraulic Tests on Pipes and Fittings

7.1. 7.1 Hydraulic tests before installation on board

7.1.1 All Class II pipes and their associated fitlings are to be lesled by tiydiaulic pressure to the Surveyor's satisfaction. Further, all steam, feed, compiessed air and fuel oil pipes, together with their fittings, are to be similarly tested where the design pressure is greater than 0.35 [N/mm^2]. The test is to be carried out after completion of manufacture and before installation on board and, where applicable, before insulating and coating.

7.1.2 The test pressure is to be 1.5 times the design pressure.

7.1.3. All valve bodies are to be tested by hydraulic pressure to 1.5 times the nominal pressure rating at ambient temperature. However, the test pressure need nol be more than 7 [N/mm^2] above the design pressure specified for the design temperature.

7.3 Testing after assembly on board

7.2.1 Heating coils in tanks and fuel oil piping are to be tested by hydraulic pressure, after installation on board, to 1.5 times the design pressure but in no case to less than 0.35 [N/mm^2].

7.2.2. Where bilge pipes are accepted in way of double bottom tanks or deep tanks, Ihe pipes after Titling are to be tested by hydraulic pressure to the same pressure as the tanks through which they pass.

End of Chapter

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Chapter 3
Pumping and Piping

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Section 1
General

1.1 Scope

1.1.1 The requirements of this Chapler are applicable to all vessels except where otherwise stated.

1.1.2 Piping systems layouts, for which no requirements are given herein, will be specially considered.

1.2 Plans

1.2.1 The following plans in diagrammatic form are to be submitted for consideration before proceeding with the work.

a) General arrangement of pumps and piping systems;
b) Fuel oil filling, transfer and service piping systems;
c) Bitge and ballast piping systems.
d) Lubricaling-oil piping systems;
e) Liquid cargo pumping systems;
f) Hydraulic power piping systems for essential services;
g) Compressed air piping systems;
h) Steering gear piping systems;
i) Sea water and fresh water service piping systems;
j) Air and sounding piping systems;
k) Steam and feed water piping systems
l) Sanitary piping systems;
m) Fire main and fire extinguishing piping systems.

1.2.2 The plans are to include the information like, wall thickness, maximum working pressure temperature and material of all pipes and type, size and material of the valves and fittings.

1.3 Materials

1.3.1. Thematerialeto be used in piping systems are to be suitable for the service intended. In general, except where otherwise stated, pipes, valves and fittings are to be made of steel, cast iron, copper, copper alloy or other approved material.

1.3.2. Cast iron ts not to be used for:

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a) Vesselside and collision bulkhead fittings;

b) Outlet valves or fuel tanks with static head;

c) Bilge and ballast lines passing through double bottom tanks, pipe tunnel and cargo oil tanks;

d) Any piping which can be subjected to shock such as water hammer.

1.3.3 Materials sensitive to heat such as aluminium, lead or plastics, are not to be used in systems essential to the safe operation of the vessel.

1.4 Design pressure

1.4.1. The design pressure is considered to be, the most severe condition of co-incident pressure and temperature expected in normal operation. For this purpose the maximum difference in pressure between inside and oulside of the part is to be considered-

1.5 Design temperature

1.5.1 Unless otherwise specified the tempe rature used in design is to be not less than the mean metal temperature (through the thickness) expected under operating conditions for the part considered.

1.5.2 When sudden cyclic changes in tempe rature are apt to occur in normal operation wrth only minor pressure fluctuations, the design is to be governed by the highest probable operating temperature and corresponding pressure.

1.6 Redundancy

1.6.1 Redundancy is the ability of a system or a component thereof to maintain or restore its function when one failure has occurred. This can be achieved for instance by installation of more units or alternative means for performing Ihe function.

1.7 Valves and cocks

1.7.1 All the valves and cocks are to be so designed and constructed so trial the varve covers or glands will not slacken up when ihe valves are operated.

1.7.2 All ihe valves are to be designed to close with tight hand (clockwise when facing the end of the stem) motion of the wheel of the valve.

1.7.3. All the valves and cocks are to be fitted in places where they are easiry accessible at all times and are to be fitted wrth legible nameplates indicating their function in the system and their installation rs to be such that it can be readily observed that they are open or closed.

1.7.4 All the valves and cocks fitted with remote control are to be provided with local manual control independent of the remote operating mechanism. The operation of the local control Is not to render the remote control system inoperable.

1.7.5 The valves, cocks and other fittings which are attached directlylo plating, which is required to be of watertight construction, are to be secured to the plating by means of studs screwed into the plating and not by bolts passing through clearance holes. Alternatively the studs may be welded to the plating.

1.8 Vesselside fittings (other than sanitary discharges and scuppers)

1.8.1. All sea inlet and overboard discharge valves are to be fitted in either of the following ways:

a) directly on the shell plating;
b) to the plating of fabricated steel water boxes of rigid construction integral with the vessel's plating;
c) to short, rigid distance pieces welded to Ihe shell plating.

1.8.2 All valves and cocks fitted directly to the shell plating are to have spigots extending through the plating. These spigot on valves may however be omitted if valves are fitted on pads which themselves form spigots in way of plating.

1.8.3 Valves and cocks are to be attached to the shell plating by bolts tapped into the plating and fitted with countersunk heads, or by studs screwed into heavy steel pads fitted to Ihe plating. The stud holes are not to penetrate Ihe pad plating.

1.8.4 Vessel side valves and fittings, if made of steel or material with low corrosion resistance, are to be suitably proteciec against wastage.

1.8.5 Gratings are to be fitted at all openings in vessel's side (or inlet of seawater. The net area through the gratings is to be at least twice the area of the valves connected to the opening.

1.8.6 The scannings of valves and valve stools fitted with stream, or compressed air clearing connections are to be suitable for the maximum

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pressure to which the valves and stools may be subjected.

1.9 Piping installation

1.9.1 Heavy pipes and valves are to be so supported that their weight is not taken up by connected pumps and fittings.

1.9.2 Support of the pipes is to be such that detrimental vibrations do not arise in the system.

1.9.3 Where pipes are carried through watertight bulkheads or tank lops, means are to be made to ensure the integrity of the watertighlness of the compartment.

1.9.4 As far as possible, installation of pipes for water, oil, or steam, is to be avoided near electric switchboards. If this is impracticable, all the joints in pipe line and valves are to be at a safe distance from the switchboards and shielded to prevent damage to switchboard.

1.9.5 Provision is to be made to lake care of expansion or contraction stresses in pipes due to temperature stresses or working of the hull.

1.9.6 Expansion pieces of approved type, made of oil resistant fe-inforced, rubber or other approved material may be used in circulating water systems in machinery spaces.

1.9.7 Ail piping systems, where a pressure greater than the designed pressure could be developed, are to be protected by suitable relief valves.

1.9.8 All pipes, situated in cargo spaces, fish holds or other spaces, where they can be damaged mechanically, are to be suitably protected.

1.9.9 All pipes which pass through chambers intended for the carriage or storage of refrigerated cargo are to be well insulated. In case the temperature of (he chamber is below OC the pipes are to be insulated from lhe vessel's structure also, except at positions where the temperature of lhe vessel's structure is always above 0°C and is controlled by outside temperature.

Air refreshing pipes leading to and from refrigerated chambers need not be insulated from the vessel's structure.

Section 2
Bilge and Ballast Piping System

2.1 General

2.1.1 All vessels are to be provided with necessary pumps, suclion and discharge piping and means of drainage so arranged that any compartment can be pumped out effectively, when the vessel is on an even keel and is either upright or has a list of not more than 5 degrees, through at least one suction, except from machinery spaces where at least two suctions are required, one of which is to be a branch bilge suction and the other is to be a direct bilge suction. Wing suctions will, generally, be necessary (or this purpose, except for short narrow compartments, where a single suction may be sufficient.

2.1.2 All passenger vessels are to be provided with an efficient bilge pumping plant capable of pumping from and draining any watertight compartment under all practicable conditions after a casualty whether lhe vessel is upright or listed.

2.1.3. Attention is drawn to any relevant statutory requirements of the National Authority of the country in which the vessel is to be registered.

2.2. Drainage of cargo holds

2.2.1. In vessels having only one hold, and lhis over 30 [m] in length, bilge suctions are to be provided in the fore and after sections of the hold.

2.2.2. In vessels having a flat bottom with breadth exceeding 5 [m], bilge suctions are to be lilted at the wings.

2.2.3. Where close ceilings or continuous gusset plates are fitted over lhe bilges, arrangements are to be made whereby the water in the hold may find its way to the suction pipes.

2.2.4. In vessels fitted with double bottoms, suitably located bilge wells are to be provided.

2.3. Drainage from fore and aft peaks

2.3.1. Where the peaks are used as tanks, a power pump suction is to be led to each tank.

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except in case of small lanks (generally not exceeding 2 [m^3] used Tor the carriage of domestic fresh water where hand pumps may be used.

2.3.2 The peaks may be drained by hand pumps provided the peaks are not used as tanks and they are not connected to bilge main. The suction lift is to be wellwilhin the capacity of lhe hand pumps and is not to exceed 7.3 [m].

The after peak may be drained by means of a self closing cock situated in a well lighted and accessible position, and draining Into engine room or tunnel.

2.3.3 The collision bulkhead is not to be pierced below the bulkhead deck by more than one pipe for dealing with the contents inside the fore peak tank except as permitted in 2.3.4. The pipe is to be provided with a screw down.varve capable of being operated from above the bulkhead deck and ihe chest of the valve is to be secured to lhe collision bulkhead inside the tank except as peimitted by 2.3.5. An indicator is to be provided to indicate whether the valve is open or shut.

2.3.4. In vessels, other than passenger vessels, where the forepeak is divided into two compartments, the collision bulkhead may be pierced by two pipes, i.e. one for each compartment and fitted as in 2.3.3.

2.3.5. In vessels other than passenger vessels, the valve required by 2.3.3 may be fitted on the after side of the collision bulkhead, provided the valve is readily accessible at all time and is not subject to mechanical damage.

2.4 Drainage from tanks, cofferdams and void spaces.

2.4.1 All the tanks except self-draining tanks, whether for water ballast, oil fuel, liquid cargoes, etc. are to be provided with suction pipes led to suitable power pumps. The pumping plant is to be so arranged that any water or liquid within any compartment of the vessel can be pumped out through at least one suction, when the vessel is on an even keel and is either upright or has a list of not more than 5 degrees.

2.4.2. Where the length of the ballast lank exceeds 30 [m], an additional suction is to be provided at the forward end or the tank. Where the width of the tank is unusually large, suctions near the centreline in addition to wing suctions may be required.

2.4.3. Suction pipes from the cofferdams and void spaces are to be led to the main bilge line.

2.4.4 In vessels where deep lanks may be used for either water ballast or dry cargo, provision is to be made for blanking the water ballast suction and filling when the tank is being used for carrying cargo and for blanking the bilge line when the tank is being used for carriage of water ballast.

2.5 Drainage from spaces above fore and after peaks and above machinery spaces

2.5.1 Provision is to be made for the drainage of chain locker and watertight compartments above the foie peak tank by hand or power pump suctions.

2.5.2 Steering gear compartments or othersmall enclosed spaces situated above the after peak tank are to be provided wilh suitable means of drainage, either by hand -or power bilge suctions.

2.5.3 If lhe compartments referred to in 2.5.2 are adequately isolated from lhe adjacent 'tween decks, they may be drained by scuppers of not less than 38 [mm] bore, discharging into the tunnel (or machinery spaces in case of vessels wilh machinery aft) and titled wilh self-closing cocks situated in well lighted and visible positions. These arrangements are not applicable to passenger vessels unless they are specially approved in relation to subdivision considerations.

2.5.4. Accommodation spaces which overhang machinery spaces may also be drained as in 2.5.3.

2.6 Drainage from machinery spaces

2.6.1 The bilge drainage arrangements for machinery spaces are to be in accordance with the requirements of 2.1.

2.6.2 In vessels in which the propelling machinery is situated at the after end of the vessel, it will generally be necessary for the bikje suctions to befitted in the forward wings as well as in the after end of the machinery space, but each case will be deall with according to the size and structural arrangements of the compartment.

2.6.3 Where lhe machinery space divided into watertight compartments, ihe drainage syslem for all compartments except for main engine room is to be same as for cargo holds except that one direct bilge suction from each watertight compartment would also be required.

2.7 Sizes of bilge suctions

2.7.1 The internal diameter of the bilge pipes is not to be less than lhat found by the following formula to the nearest 5 [mm] commercial size available:

a) $d_m = 1.5\sqrt{L(B+D)} + 25[mm]$

b) $d_m = 2.0\sqrt{C(B+D)} + 25[m]$

where.

d_m = internal diameter of bilge main [mm]:

d_b = internal diameter of branch biige [mm];

L = Rule length of vessel |m);

B = Moulded breadth of vessel [m];

C = Length of lhe compartment [m];

D = Moulded depth to bulkhead deck [m].

2.7.2 In any case, bilge main suction line and branch bilge suction line diamelers are not to be less than 40 [mm] and the diameter otthe main bilge line is not be less than lhat of the branch bilge line.

2.7.3. The internal diameter of lhe direct bilge suction is not to have less than the main bilge line when connected to a power pump and not less than branch bilge suction when connected to a hand pump.

2.7.4. In oil tankers and similar vessels, where the engine room pumps do not deal with bilge drainage outside the machinery spaces, the rule diameter of the bilge main may be reduced provided the proposed cross-sectional area of the bilge main is not less than twice that required for the branch bilge suction in machinery spaces.

2.7.5. The area of each branch pipe connecting the bilge main to a distribution chest is to be not - less than the sum of the areas required by lhe rules for the two largest branch bilge suction pipes connected to lhat chest, but need not be greaier than that required for the main bilge line.

2.8 Bilge pumps and ejectors

2.8.1. In vessels with main propulsion engines up to 220 [kW] (300 shp), at least one power bilge is to be provided which may be driven by the main engines. In addition hand pump suctions are to be fitted. In vessels where the main propulsion engines power exceeds 220 [kW] (300 shp), at least two power bilge'pumps are to be provided and at least one of which is to be independently driven. See also 2.11 for requirements regarding passenger vessels.

2.8.2 The capacity of lhe bilge pump may be found by lhe following formula:

$$Q = 5.75 \times 10^{-3} \times d^2 \ [m^3/hour]$$

where,

Q = capacity of pump [m^3/hour]

d = rule diameter of bilge main [mm).

2.8.3 In vessels, other than passenger vessels, where one bilge pump is of slightly less than rule capacity, the deficiency may be made good by an excess capacity of the other pump. In general this deficiency is to be limited to 30 percenl.

2.8.4 An ejector in conjunction with a sea water pump may be accepted as "a substitute for independent power bilge pump. This however, is not acceplable on passenger vessels.

2.9 Pump types

2.9.1 The bilge pumps required by the rules are to be of self-priming type, unless,an approved priming system is provided for these vessels.

2.9.2 General service pumps and ballast pumps may be accepted as independent power bilgepumps provided:

a) Their capacity is adequate and accordance with 2.8.2;
b) These pumps, togelherwilh lhe pipelines to which lhey are connected, are fitted with necessary devices to ensure that there is no risk of entry of water or oil fuel in the holds or machinery spaces.

2.10 Bilge piping arrangements and fittings

2.10.1 Bilge pipes are not, as far as possible, to pass through double bottom tanks. If un-avoidable such bilge pipes are to be ol heavy gauge, with welded joints or heavy flanged joints and are to be tested after fitting to the same pressure as the tanks through which lhey pass.

2.10.2. The parts of bilge pipes passing through deep tanks, intended to carry water ballast,fresh water, liquid cargo or fuel oil are normally to be contained in a pipe tunnel, but where this is nol done, the pipes are to be of heavy gauge with welded or heavy flange joints. The open

ends of such pipes are to be fitted with nonreturn valves. The pipes are to be tested, after fining, to a pressure of not less than the maximum head to which the tanks may be subjected.

2.10.3 Expansion bends, not glands, are to be fitted to pipes passing through double bottom tanks or deep tanks.

2.10.4 The inladness of the machinery spaces, bulkheads and of lunnet plating is not to be impaired by fitting of scuppers discharging Into machinery spaces or tunnel from adjacent compartments which are situated below the bulkhead deck. These scuppers may, however, be led into a strongly built scupper drain tank situated in the machinery space or tunnel but closed to these spaces and drained by means of a suction of appropriate size led from the main bilge line through a screw-down non-return valve.

a) The scupper tank air pipe is to be led above lhe bulkhead deck and provision is to be made for ascertaining the level ol the water in the tank:
b) Where one lank is used for the drainage of several watertight compartments the scupper pipes are to be provided with screw-down non-return valves.

2.10.5 No drain valve or cock is to be fitted to the collision bulkhead. Drain valves or cocks are not to be fitted to other watertight bulkheads if alternative means of drainage are practicable. These arrangements are not permissible in passenger vessels.

2.10.6 Where diain valves or cocks are fitted to bulkheads other, than collision bulkhead, as permitted by 2.10,5, the drain valves or cocks are to be at all limes readily accessible and are to be capable of being shut off from positions above the bulkhead deck. Indicators are to be provided to showwhether the drains are open or shut.

2.10.7 Bilge pipes which are required for draining cargo or machinery spaces are to be entirely distinct from sea inlet pipes or from pipes which may be used for filling or emptying spaces where water or oil is carried. Thrs does not, however, exclude a bilge ejection connection, a connecting pipe from a pump to its suction valve chest, or a deep tank suction pipe suitably connected through a change-over device to bilge, ballast or oil line.

2.10.8 The arrangement of pumps, valves and piping is to be such that any pump could be opened up for overhaul and repairs wilhout affecting the operation of the other pumps.

2.10.9 The arrangement of valves, pumps, cocks and their pipe connections is to be such as to prevent the possibility of placing one watertight compartment in communication with another, or of cargo spaces, machinery spaces or other dry spaces corning in communication wrth the sea or the tanks. For this purpose the bilge suction, pipe of any pump also having sea suction is to be fitted with a non-return valve which cannot permit communication between the bilges and the sea or the compartments In use as tanks.

2.10.10 Screw-down non-return valves are to be provided in the following fittings:

a) Bilge distribution chest valves;
b) Direct bilge suction and bilge pump connection to main line;
c) Bilge suction hose connections on the pumps or on the main line;
d) Emergency bilge suctions.

2.10.11 Bilge suction pipes from machinery spaces and shaft tunnel, except emergency bilge suction, are to be led from easily accessible mud boxes fitted with straight tail pipes to the bilges. The open ends of the tail pipes are not to be fitted with strum boxes. The mud boxes are to be provided with covers which can be easily opened and closed for cleaning purposes.

2.10.12 Strum boxes are to be fitted to the open ends of bilge suction pipes from the cargo holds. The diameter of holes from these strum boxes is not to be more than 10 [mm] and the total area of the holes is not to be less than twice the area of the pipes.

2.10.13 Where access manholes to bilge wells are necessary, they are to be filled as near to the suction strums as practicable.

2.10.14 Adequate distance is to be provided between lhe open ends of suction pipes and bilge well bottom io permit adequate *anc* cash flow of water and to facilitate cleaning.

2.10.15 All the valves, cocks and mud boxes are to be located in easily accessible positions above or at the same level as the floor plates. Where this is unavoidable, they may be fitted immediately below the floor plates provided the floor plates are capable of being opened and

closed easily and suitable name plates are fitted indicating the fittings below.

2.10.16 Where relief valves are fitted to pumps having sea connections, these valves are to be fitted in readily visible positions above the platform. The arrangement is to be such that any discharge from the relief valves will also be readily visible.

2.10.17 Where non-return valves are fitted to the open ends of bilge suction pipes in cargo holds in order to decrease the risk of flooding, they are to be of an approved type which does not offer undue obstruction to the flow of water.

2.11 Additional requirements for passenger vessels

2.11.1 Where practicable, the power bilge pumps are to be placed in watertight compartments so arranged or situated that these compartments will not readily be flooded by the same damage. If the engines and boilers are in two or more watertight compartments, the pumps available for bilge service are to be distributed throughout these compartments as far as is possible.

2.11.2 In passenger vessels the arrangements are to be such that at least one power pump is available for use in all ordinary circumstances in which a vessel may be flooded at sea. This requirement will be satisfied if:

a) One of the required pumps is an emergency pump of reliable submersible type having a source of power situated above the bulkhead deck: OR
b) The pumps and their sources of power are so disposed throughout the length of the vessel thai under any condition of flooding which the vessel is required by statutory requirements to withstand, at least one pump in undamaged compartment will be available.

2.11.3 Provisionis to be made to prevent the compartment served by any bilge suction pipe being flooded in the event of the pipe being severed, or otherwise damaged by collision or grounding in any other compartment. For this purpose where the pipe is at any part srtualed nearer Ihe side of the vessel than one-fifth the breadth ot the vessel (measured at right angles to the centreline at the level of the deepest subdivision loadline), or in a duct keel, a non-return valve is to be fitted to ihe pipe in the compartment containing the open end.

2.11.4 All the distribution boxes, cocks and valves in connection with the bilge pumping arrangements are to be in positions which are accessible at all times under ordinary circumstances. They are to be so arranged that, in the event of flooding, one of the bilge pumps may be operative on any compartment, in addition damage to a pump or its pipe connecting to the bilge main outboard of a line drawn at one-fifth of the breadth of the vessel is not to put the bilge system out of action. If there is only one system of pipes common to all the pumps, the necessary cocks or valves for controlling the bilge suctions must be capable of being operated from above the bulkhead deck. Where in addition to the main bilge pumping system an emergency bilge pumping system is provided, its is to be independent of the main system and so arranged that a pump is capable of operating on any compartment under flooding conditions, in that case only the cocks and valves necessary for the operation of the emergency system need be capable of being operated from above the bulkhead deck.

2.11.5 All valves and cocks mentioned in 2.11.4 which can be operated from above We bulkhead deck shall have their controls at their place of operation dearly marked and provided with means to indicate whether they are open or closed.

2.12 Ballast system

2.12.1 Provision is to be made for ballasting and deballasting all the ballast tanks by pipe lines which are entirely separate and distinct from pipe lines used for bilging.

2.12.2. Where the length of the ballast tanks exceeds 30 [m], an additional suction is to be provided at the forward end of the tanks. Where the width of the tank ts unusually large, suction near the centreline in addition to wing suctions may be required.

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Section 3
Air and Sounding Piping Systems

3.1 General

3.1.1 Reference to oil in this Section is to be taken to mean oil which has a flash point of 60°C or above (closed cup test).

3.1.2 The portions of vent, overflow and sounding pipes fitted above the weather deck are to be of steel.

3.1.3 Name plates are to be affixed to the upper ends of all vent and sounding pipes.

3.2 Air pipes

3.2.1 Vent pipes are to be fitted to all tanks, cofferdams, tunnels and other compartments which are not fitted with alternative ventilation arrangements.

3.2.2 The vent pipes are to be fitted at the opposite end ofIhelankto which Ihe filling pipes are placed and/or at the highest part of the tank and are to be of the self draining type. Where the tank top is of unusual or irregular profile, special consideration will be given to the number and positions of the vent pipes.

3.2.3 Tanks provided with anodes for cathodic piotection are to be provided with vent pipes at forward and aft ends.

3.2.4 Vent pipes to double bottom tanks, deep tanks extending to Ihe shell plating or tanks which can be run up from the sea and sea chests are to be run up from the sea and sea chests are to be led above the bulkhead deck.

3.2.5 Vent pipes to oil fuel and cargo oil tanks, cofferdams, all tanks which can be pumped up. shaft tunnels and pipe tunnels are to be led above the bulkhead deck and to open air.

3.2.6 Vent pipes from lubricating oil storage tanks may terminate in the machinery spaces, provided that the open ends are so situated that issuing oil cannot come into contact with electrical equipment or heated surfaces.

3.2.7 The open ends of vent pipes to oil fuel and cargo oil tanks are to be situated where no danger will be incurred from issuing oil or vapour when the lank is being filled.

3.2.8 For details regarding height and closing devices for vent pipes see Pt.3, Ch.11.

3.2.9 The open ends of vent pipes to oil fuel, cargo oil and ballast tanks fitted with anodes for cathodic protection, are to be fitted with a wire gauze diaphiagm of incorrodible material which can be readily removed lot cleaning. The clear area through the wire gauze is to be at least equal to the area of Ihe vent pipe.

3.2.10 In the case of all tanks which can be pumped up either by vessel's pumps or by shore pumps through a filling main, the total cross-sectional area of the vent pipes to each tank, or of the overflow pipes where an overflow system is provided, is to be not less than 25 per cent greater than the effective area of the respective filling pipes.

3.3 Sounding arrangements

3.3.1 All tanks, cofferdams and pipe tunnels are to be provided with sounding pipes or other approved means for ascertaining the level of liquid in the tanks. Bilges of compartments which are not at all times readily accessible are to be provided with sounding pipes. The soundings are to be taken as near the suction pipes as practicable.

3.3.2 Where gauge glasses are used for indicating the level of liquid in tanks containing lubricating oil, oil fuel or other flammable liquid. the glasses are to be of heat resisting quality. adequately supported, protected from mechanical damage and fitted with self-closing valves al Ihe lower ends and at the top ends if these are connected to Ihe tanks below the maximum liquid level.

3.3.3. Except as permitted by 3.3.4 sounding bpipes are to be led to positions above the bulkhead deck which are at all times accessible and in the case of oil fuel tanks, cargo oil tanks and lubricating oil tanks. Ihe sounding pipes are to be led to safe positions on the open deck.

3.3.4. Short sounding pipes may be fitted to double botiom lanks and cofferdams in shaft tunnels and machinery spaces provided the pipes are readily accessible. Short sounding pipes to oil fuel tanks, cargo oil tanks and lubricating oil tanks are not to be placed in the vicinity of boilers, preheateis, heated surfaces, electric generators or motors with commutator or collector rings or electric appliances which are not totally enclosed. The short sounding pipes are to be arranged in such a way that overflow

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or oil spray will not reach any of machinery components mentioned above. The short sounding pipes are to be Titled with self-closing cocks having cylindrical plugs with weight loaded levers permanently attached and with pedals for opening or other approved arrangements. Short sounding pipes to tanks not intended Tor oil are to be fitted with screw caps attached by chain to the pipe or with shut off cocks.

3.3.5 In passenger vessels, short sounding are permrssible only for sounding pipes cofferdams and double bottom tanks situated in the machinery space and are in all cases to be fitted with self closing cocks as described in 3.3.4.

3.3.6. Striking plates of adequate thickness and size are to be fitted under open ended sounding pipes. Where slotted pipes having closed ends ate employed, the closing plugs are to be of substantial construction.

3.3.7. The upper ends of all sounding pipes are to be provided with efficient closing devices. The sounding pipes are to be arranged to be as straight as practicable, and if curved, the curvature is to be large enough to permit easy passage of sounding rod/chain.

Section 4
Fuel Oil Systems

4.1 General

4.1.1 Oil fuel for machinery and boilers is normally to have a flash point not lower than 60°C (closed cup lest). For emergency generator engines, the oil fuel is to have a flash point not lower than 43°C (closed cup test).

4.1.2 Fuels with flash point lower than 60°C may be used in vessels intended for service restricted to geographical limits where it can be ensured that the temperature of the machinery and boiler spaces will always be 10°C below the flash point of the fuel. In such cases safety precautions and the arrangements for storage and pumping will be specially considered. However, the flash poinl of the fuel is not to be less than 43°C unless specially approved.

4.2. Oil fuel tanks

4.2.1 Oil fuel tanks are to be separated from fresh water and lubricating oil tanks by means of cofferdams.

4.2.2. Oil fuel tanks are not to be located directly above the highly heated surfaces.

4 3 Oil fuel piping

4.3.1 Oil fuel pressure pipes are to be led. where practicable, remote from heated surfaces and electrical appliances, but where this is impracticable the pipes are to have a minimum number of joints and are to be led in weii lighted and readily visible positions.

4.3.2 Transfer, suction and other low pressure oil pipes and all pipes passing through oil storage tanks are to be made of cast iron or steel, having flanged joints suitable for a working pressure of not less than 0.69 [N/mm^2]. The flanges are to be machined and the jointing material is to be impervious to oil. Where the pipes are 25 [mm] bore or less, Iheyjnay be seamless copper, or copper alloy, except those which pass through storage tanks.

4.3.3 Pipes in connection with compartments storing fresh water are to be separate and distinct from any pipes which may be used for oil or oily water and are not to be led through tanks which contain oil, nor are oil pipes to be led through fresh water tanks.

4.3.4 Pipes conveying vegetable oils or similar cargo oils are not to be led through oil fuel tanks, nor are oil fuel pipes to be led through tanks containing such.cargoes.

4.3.5 In passenger, vessels, provision is to be made for the transfer of oil fuel from any oil fuel storage or settling tank to any other oil fuel storage tank.

4.4 Arrangement of valves, cocks, pumps and fittings

4.4.1 The oil fuel and pumping piping arrangements are to be distinct from other pumping systems as far as practicable and the means provided for preventing dangerous interconnection in service are to be thoroughly effective.

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4.4.2 All valves and cocks forming part of the oil fuel installation are to be capable of being controlled from readily accessible positions which, in the machinery spaces are to be above the working platform.

4.4.3 Every oil fuel suction pipe from a double bottom tank is to be fitted with a valve or a cock.

4.4.4 For oil fuel tanks which are situated above the double bottom tanks, the inlet and outlet, pipes which are connected to the tank at a point lower than the outlet of the overflow pipe or below the top of the tanks without an overflow pipe, are to be fitted with shut off valves located on the tank itself.

4.4.5. In the machinery spaces valves, mentioned in 4.4.4, are to be capable of being closed locally and from positions outside these spaces which will always be accessible in the event of fire occurring in these spaces. Instructions for closing the valves are to be indicated at the valves and at the remote control positions.

4.4.6 Settling tanks are to be provided with means for draining water from the bottom of the tanks. If the settling- tanks are not provided, the oil fuel bunkers or daily service tanks are to be fitted with water drains.

Open drains for removing water from oil tanks are to be fitted with valves or cocks of self-closing type and suitable provision is to be made for collecting the oily discharge.

4.4.7 Where a power driven pump is necessary for transferring oil fuel, a stand by pump is to be provided and connected ready for use, or. alternatively, emergency connections may be made to another suitable power driven pump.

4.4.8 All pumps which are capable of developing a pressure exceeding the design pressure of the system are to be provided with relief valves. Each relief valve is to be in close circuit, i.e. arranged to discharge back to the suction side of the pump and to effectively limit the pump discharge pressure to the design pressure of the system.

4.4.9 Valves or cocks are to be interposed between the pumps on the suction and discharge pipes in order that any pump may be shut off for opening up and overhaul.

4.4.10. Drip trays are to be fitted under all oil fuel appliances which are required to be opened up frequently for cleaning or adjustment.

4.5 Filling arrangements

4.5.1 The bunkering of the vessel is to be carried out through a permanently fitted pipeline, provided with the required fittings and ensuring fuel delivery to all storage tanks. The open end of the fitting pipe is to be led to the tank bottom.

In passenger vessels fuel bunkering stations are to be isolated from other spaces and are to be efficiently drained and ventilated.

4.5.2 Provision is to be made against over pressure in the filling pipes, and any relief valve fitted for this purpose is to be discharge In to an overflow tank or other safe position.

4.6 Oil fuel burning arrangements

4.6.1. 'Fitters are to be Titled in the supply lines to the main and auxiliary machinery. For non-redundant units for essential services, it must be possible to clean the filters without stopping the unit or reducing the supply of filtered oil to the unit.

For auxiliary engines one single oil fuel filter for each engine may be accepted.

4.6.2 Where an oil fuel booster pump is fitted, which is essential to the operation of the main engine(s), a standby pump is to be provided. The standby pump is to be connected ready for immediate use but where two or more main engines are fitted, each with its own pump, a complete spare pump may be accepted provided that it readily accessible and can be easily installed.

4.6.3 Where pumps are provided for fuel valve cooling, the arrangements are to be as in 4.6.2.

4.7 Remote stop of oil fuel pumps and fans

4.7.1 Emergency stop of power supply to the following pumps and fans is to be arranged from a central place outside the engine and boiler room:

- oil fuel transfer pump;
- oil fuel booster pump:
- nozzle cooling pumps when oil fuel is used as coolant;
- oil fuel purifiers;
- pumps for oil-burning installations;
- fans for ventilation of engine rooms.

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Section 5

Engine Cooling Water Systems

5.1 General

5.1.1 Centrifugal cooling water pumps are to be installed as low as possible in the vessel.

5.2 Cooling water main supply

5.2.1 Provision is to be made for an adequate supply of cooling water to the main propelling machinery and essential auxiliary engines, also to lubricating oil and fresh water coolers, where these coolers are fitted. The cooling water pump(s) may be worked from lhe engines or be driven independently.

5.3 Cooling water standby supply

5.3.1 Provision is also [o be made for a separate supply of cooling water from a suitable independent pump of adequate capacity.

5.3.2. The following arrangemenls are acceptable, depending on the purpose for which lhe cooling waler is intended:

a) Where only one main engine, with power exceeding 370 [kW] (500 shp), is'fitted, the slandby pump is to be connected ready for immediate use:

b) Where more than one main engine is fitted, each with ils own pump, a complete spare pump of each type may be accepted;

c) Where fresh water cooling is employed for main/auxiliary engines, a slandby means of cooling need not be fitted if lhere are suitable emergency connections from a salt waler system;

d) Where each auxiliary is filled with a cooling water pump, standby means of cooling need not be provided for auxiliaries. Where, however a group of auxiliaries is supplied with cooling water from a common system, a standby cooling water pump is to be provided for this system. The pump is to be connected ready for immediate use and maybe a suitable general service pump.

5.3.3 When selecting a pump for standby purposes, consideration is to be given to the maximum pressure which it can develop if the overboard discharge valve is partly or fully closed and, when necessary, condenser doors, waler boxes, etc. are to be prelected by an approved device against inadvertent over pressure.

5.4 Relief valves on cooling water pumps

5.4.1 Where cooling waler pumps can develop a pressure head greater than the design pressure of the system, they are to be provided wilh relief valves on the pump discharge to effectively limit the pump discharge pressure to the design pressure of the system.

5.5 Sea inlets for cooling water pumps

5.5.1 Sea-water cooling systems for main and auxiliary machinery are to be connected to at least two cooling water inlets, preferably on opposite sides of lhe vessel.

5.5.2. Where sea water is used for the direct cooling of main engines and auxiliaries, the sen water suction pipes are to be provided with strainers which can be cleaned without interrupting lhe cooling water supply.

Section 6

Lubricating Oil Piping Systems

6.1 General

6.1.1. Lubricating oil systems are to be entirely separated from other systems. This requirement, however, does not apply to hydraulic governing and maneuvering systems for main and auxiliary engines.

6.1.2 Lubricating oil tanks are to be separated from other tanks containing water, fuel oil or cargo oil by means of cofferdams.

6.2 Pumps

6.2.1 Where lubricating oil for the main engine(s) is circulated under pressure, a

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standby lubricating oil pump is to be provided where one main engine is titled and the output of the engine exceeds 370 [kW) (500 shp).

6.2.2 Satisfactory lubrication of the engines is to be ensured while starting and maneuvering.

6.2.3 Similar provisions to those of 6.2.1 and 6.2.2 are to be made where separate lubricating oil systems are employed for piston cooling, reduction gearing, oil operated couplings and controllable "pitch propellers, unless approved alternative arrangements are provided. Where the oil glands for stem tubes are provided with oil circulating pump, and the continuous running of this pump is necessary during normal operation, then a standby pump for this purpose is to be provided.

6.2.4 Independently driven rotary type pumps are to be fitted with non-return valves on the discharge side of the pumps.

6.2.4 A relief valve in close circuit is to be Tilted on the pump discharge it Ihe pump is capable of developing a pressure exceeding the design pressure of the system, the relief valve is to effectively limit the pump discharge pressure to the design pressure of the system.

6.3 Control of pumps and alarms

6.3.1 The power supply, to all independently driven lubricating oil pumps is to be capable of being stopped from a position outside the space which will always be accessible in the event of fire occurring in the compartment in which they are situated, as well as from the compartment itself.

6.3.2 All main and auxiliary engines intended Tor essential services are to be provided with means of indicating the lubricating oil pressure supply to them. Where such engines and turbines are of more than 75 [kW] (100 shp), audible and visual alarms are to be Titled to given warning of an appreciable reduction in pressure of the lubricating oil supply. Further, these alarms are to be actuated from the outlet side of any restrictions, such as Tillers, coolers, etc.

6.4 Filters

6.4.1 In systems, where lubricating oil is circulated under pressure, provision is to be made for efficient filtration of the oil. For non-redundant units, for essential services, it must be possible to clean the filters without stopping the unit or reducing the supply of tillered oil to the units.

6.5 Valves and cocks onlubricating oil tanks

6.5.1 Outlet varves$_F$ and cocks on lubricating oil service tanks, other than double bottom tanks, situated in machinery spaces are to be capable of being closed locally and from positions outside the space which will always be accessible in the event of fire occurring in these spaces. Remote controls need only be titled to outlet valves and cocks which are open in normal service and are nol required for other outlets such as Ihose on storage tanks.

Section 7
Engine Exhaust Gas Piping Systems

7.1 General

7.1.1 Where the surface temperature'of the exhaust pipes and silencer may exceed 220°C, they are to be water cooled or efficiently lagged.

7.1.2 Where lagging covering the exhaust piping including flanges, is oil-absorbing or may permit penetration of oil, the lagging is to be encased in sheet metal or equivalent. In locations where the Surveyor is satisfied that oil impingement could not occur, Ihe lagging need not be encased.

7.1.3 Exhaust pipes which are led overboard near the waterline are to be protected against the possibility of water finding its way inboard. Where the exhaust is cooled by water spray, the exhaust pipes are to be self-draining overboard.

7.1.4 Exhaust pipes of two or moie engines are not to be connected together, but are to be led separately to the atmosphere unless arranged to prevent the return of gases to an idle engine.

7.1.5. In two-stroke engines fitted with exhaust gas turbo-chargers which operate on the impulse systems, piovision is to be made to prevent broken piston rings entering the turbine casing and causing damage to blades and nozzle rings.

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Section 8

Pumping and Piping Systems for vessels not Fitted with Propelling Machinery

8.1 Scope

8.1.1 Following requirements are applicable to vessels not Pitted with propelling machinery.

8.2 Vessels without auxiliary power

8.2.1 Hand pumps are to be fitted in number and position, as may be required for the efficient drainage of the vessel.

8.2.2 In general, one hand pump is to be provided for each compartment. Alternatively, two pumps connected to a bilge main, having at least one branch to each compartment are to be provided through non-return valves.

8.2.3 The hand pumps are to be capable of being worked from the upper deck or from positions above the load waterline which are at all times readily accessible. The suction lift is not to exceed 7.3 [m] and is to be well wiihin the capacity of the pump.

8.2.4 The pump capacity is to be based upon the diameter of the suction pipe required for the compartment and as determined in Sec.2.

8.3 Vessels with auxiliary power

8.3.1 In vessels in which auxiliary power is available on board, power pump suctions are to be provided for dealing with the drainage of tanks and of the bilges of the principal compartments.

8.3.2 The pumping arrangements are to be as required for self propelled vessels, so far as these requirements are applicable.

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Chapter 4

Prime Movers and Propulsion Shafting Systems

Contents

Section	
1	General
2	Main Propulsion shafting
3	Propellers
4	Vibrations and Alignment

Section – 1

General

1.1 General

1.1.1 The requirements of this Chapter are applicable to all vessels but may be modified for vessels intended for special services.

1.1.2 Prime movers of electric generalors of less than 50 [kW] Capacity, supplying power for lighting loads.only, when the vessel is in harbour, need nol be built under survey.

1.1.3 Atlenlion is drawn to any relevant statutory requirements of Ihe counlry in which the vessel is to be registered.

1.1.4 Power transmission systems not specified in this Chapter will be specialty considered.

1.2 Materials

1.2.1 Materials intended for the main parts of the prime movers and power transmission systems are to be manufactured and tested in accordance wilh the requirements of Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels.

1.3 Primemovers and reduction gearing

1.3.1 Primemovers and reduction gearings are to be designed, manufactured and tested in accordance with the requirements ol Rules and Regulalrons For the Construction & Classification of Steel Vessels.

1.4 Turning Gear

1.4.1 Arrangements are to be provided to turn the primemovef of main propulsion systems and auxiliary drives.

Section 2

Main Propulsion Shafting

2.1 Scope

2.1.1 The requirements of this Section relale, in particular, to formulae for determining the diameters of shafting for main propulsion installations, but requirements for couplings, coupling bolts, keys, keyways. slernbushes and associated components are also included. The diameter of shafting as calculated, may require to be modified as a result of alignment considerations and vibration characteristics (See Sec.8) or the inclusion of stress raisers, other than those contained in this section.

2.2 Plans and particulars

2.2.1 The following plans, in triplicate, together with the necessary particulars of the machinery, including the maximum power and revolutions per minute, are to be submitted for approval before the work is commenced:

- Final gear shaft:
- Thrust shaft;
- Intermediate shafting;
- Tube shaft, where applicable;
- Tail shaft;
- Slern bush.

2.2.2 The specified minimum tensile strength of each shaft is to be stated.

2.2.3 A shafting arrangement plan indicating the relative position of the main engines, fly wheel, flexible coupling, gearing, thrust block, line shafting and bearings, stern lube. 'A' brackets and propeller, as applicable, is to be submitted for information,

2.3 Materials for shafting

2.3.1 The materials are to comply with the relevant requirements of Ch,5. Pt.2. Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels. The specified minimum tensile strength of forgings is to be selected within the following general limits :

a) Carbon and carbon-manganesesteel - 400-600 [N/mm^2]

b) Alloy steels - Not exceeding 800 [N/mm^2]

2.3.2 Ultrasonic tests are required on shaft forgings where the diameter is 250 [mm] or greater.

2.4 Intermediate and thrust shafts

2.4.1 The diameter, d. of the shaft is to be not less than determined by the following formula :

$$d = 103.5ka\sqrt[3]{\frac{410P}{(U+160)R}}[mm]$$

Where,

a = 0.95 for turbine installation, electric propulasion installations and oil engine installations with slip type couplings.

= 1.0 for other oil engine installations;

k = 1.0 for shafts with Integral coupling flanges complying with 2.7 or shrink fit couplings;

= 1.10 for shafts with keyways, where the fillet radii in the transverse section of the bottom of the keyway are not to be less than 0.0125 d; after a length of 0.2 d from the end of lhe keyway, the shaft diameter may be reduced to the diameter calculated with k = 1.0;

= 1.10 for shafts with transverse or radial holes. where the diameter of the hole is not greater than 0.3 d;

= 1.20 for shafts with longitudinal slots having a length of not more than 1.4 d and a width of not more than 0.2 d, where d is calculated with k=1.0;

U = Specified minimum tensile strength of the material [N/mm^2]

P = maximum shaft power [kW]:

R = Revolutions per minute corresponding to maximum shaft power giving maximum torque.

2.4.2 For shafts with design features other than stated in 2.4.1, the value of k will be specially-considered.

2.5 Tailshafts and tube shafts

2.5.1 The diameter d_p, of the tailshaft immediately forward of the forward face of the propeller boss or. if applicable, the forward face of the tailshaft flange, is to be not less than determined by the following formula ;

$$d_p = 103.5ka\sqrt[3]{\frac{410P}{(U+160)R}}[mm]$$

where,

k = 1.22 for a shaft carrying a keyless propeller. or where the propeller is attached to an Integral flange, and where the shaft is fitted with continuous liner or is oil lubricated and provided with an approved rype of oil sealing gland.

= 1.26 for a shaft carrying a keyed propeller. and where lhe shaft Is fitted with a continuous liner or is oil lubricated and provided with an approved type of oil sealing gland;

= 1.25 fora shaft carrying a keyless propeller, or where the propeller is attached to an integral

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flange and is filled with water lubricated bearings with non- continuous shaft liners;

= 1.29 for a shaft carrying a keyed propeller and is fitted with water lubricated bearings wilh non-continuous shaft liners;

U = Specified minimum tensile strength of the shaft [N/rnm^2]. but is not to be taken greater lhan 600 [N/mm^2]

P, a and R are defined in 2.4.1.

2.5.2 The diameler, d_p of lhe tailshaft delermined in accordance wilh lhe formula in 2.5.1 is to extend over a length not less lhan that to the forward edge of the bearing immediately forward of the propeller or 2.5 d_p whichever is the greater.

2.5.3 The diameter of the portion of the tailshafl and tubeshaft forward of lhe length required by

2.5.2 to the forward end of lhe forward stern tube seal is to be delermined in accordance with lhe formula in 2.5.1 except lhai:

k = 1.15, when k = 1.22 or 1.26 as required by 2.5.1

k = 1.18, when k = 1.25 or 1.29 as required by 2.5.1

The change of diameler from that required by 2.5.1 to thai required by this clause should be gradual.

2.5.4 The tlaper of the shaft cone is normally not to be steeper than 1:12 on diameter in case of keyed shafts and 1:15 on diameter in case of keyless shafts.

2.5.5 Tailshafts which run in slerntubes and tube shafts may have the diameter forward of the forward stern lube seal gradually reduced to the diameler of the intermediate shaft. About changes in shaft section at the tailshaft / tubeshaft to intermediate shaft couplings is to be avoided.

2.6 Hollow shafts

2.6.1 For hollow shafts where lhe bore exceeds 40 per cent of lhe outside diameter the minimum shaft diameler is not to be less than that given by the following equation :

$$d_o = d \sqrt[3]{\frac{1}{1-\left(\frac{d_i}{d_o}\right)^4}} [mm]$$

where.

d_o = outside diameter [mm],

d = Rule size diameler of shaft (mm], calculated in accordance wilh 2.4 or 2.5

d, = diameler of central hole [mm).

2.6.2 Where the diameter of central hole does not exceed 0.4 times the outside diameter, no increase over Rule size need be provided.

2.7 Integral couplings

2.7.1 The thickness of coupling flanges is not to be less than the minimum required diameler of the coupling bolls calculated as in para 2.9, where U_8 = U or 0.2 times the rule diameter of the shaft under consideration, whichever is greater.

2.7.2 The fillet radius at the base of the coupling flange is to be not less than 0.08 of the diameler of the shaft at the coupling. The fillets are to have a smooth finish and are not to be recessed in way of nuts and boll heads.

2.7.3 Where the propeller is attached by means of a flange, the thickness of the flange is to be not less lhan 0.25 times the actual diameter of the adjacent part of the tailshaft. The fillet radius at the base of the coupling flange is to be not less than 0.125 times the diameler of the shaft at the coupling.

2.8 Demountable couplings

2.8.1. Couplings are to be made of steel or other approved ductile material. The strength of demountable couplings and keys is to be equivalent to that of the shaft. Couplings are to be accurately fitted to the shaft.

2.8.2. Hydraulic and other shrink fit couplings will be specially considered upon submittal of detailed pre-loading and stress calculations and fitting instructions. In general, the torsional holding capacity is to be at least 2.8 times the transmitted torque and pre-load stress is not to exceed 70 per cenl of the yield strength.

2.8.3. Provision is to be made to resist astern pull.

2.9 Coupling bolts

2.9.1. The diameter of the coupling bolts of fitted type at the joining faces of the coupling is to be not less than that given by the following formula;

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$$d_b = \sqrt{\frac{0.427d^3(U+155)}{NDU_B}}[mm]$$

where.

d_b = diameter of the fitted coupling bolls [mm];

d = requited diameter [mm] for the shad in accordance with 2.4 or 2.5 as appropriate calculated by taking the value or k as 1.0;

U = specified minimum tensile strenglh of the shaft material in [N/mm^2];

U_B = specified minimum tensile strength of the bolt material in [N/mm^2];

ans also $U \leq U_B \leq 1.7\ U$;

N = Number of bolts in the coupling:

D = Pitch circle diameter of bolt holes (mm],

2.9.2 The diameter of the non-filted bods will be specially considered upon the submittal of detailed pre-loading and stress calculations and "fitting instructions.

2.10 Tailshaft liners

2.10.1 The thickness, t, of bronze or gunmelal liners fitted on tail shafts, in way of bearings, is not to be less than given by following formula :

$$t = \frac{168 + d_p}{28}[mm]$$

where,

t = thickness of liner [mm];

d_p = diameter of tail shaft under the liner (mm].

2.10.2. The thickness of the continuous liner between the bearings is not to be less than 0.75t.

2.10.3. Continuous liners are preferably to be cast in one length. If made of several lengths the joining ot ihe separate pieces is to be made by welding through the whole thickness of liner before shrinking. In general, the lead content of the gunmetal of each length forming a butt welded liner is not to exceed 0.5 per cent, The composition ol the eledrode or filler tods is to be substantially lead free.

2.10.4 The liners are to withstand a hydraulic pressure of 0.2 [N/mm^2] after rough machining.

2.10.5 The liners are to be carefully shrunk or forced upon the shaft by hydraulic pressure, and they are not to be secured by pins.

2.10.6 Effective means are to be provided for preventing water from reaching lhe shaft at the part between the afler end of the liner and the propeller boss.

2.10.7 If the liner does not fit the shaft tightly between the bearing portions in the stern lube. the space between the shaft and the liner is to be filled with a plastic insoluble non- corrosive compound.

2.11 Keys and keyways

2.11.1 Round ended or sled-runner ended keys are to be used, and the key ways in the propeller boss and cone of the tail shaft are to be provided with a smooth fillet at the bottom of the keyways. The radius of the fillet is to be at least 0.0125 of the diameter oMhe tail shaft a 1 the top of the cone. The sharp edges at the top of the keyways are to be removed.

2.11.2 Two screwed pins are to be provided for securing the key in the keyway and the forward pin is to be placed at least one-third of the length of the key from the end. The depth of the tapped holes for the screwed pins' is not to exceed the pin diameter and the edges of the holes are to be slightly beveled.

2.11.3 The distance between the fop of the cone and the forward end of the keyway is to be not less than 0.2 of the diameter of lhe lailshafi at the top of the cone.

2.11.4 The effective sectional area of the key in shear, is to be not less than $\frac{d^3}{2.6d_1}$ [mm^2]

where.

d = diameter [mm], required for the intermediate shaft determined in accordance with 2.4, based on material having a specified minimum tensile strength of 400 [N/mm^2]:

d_1 = diameter of snarl at mid-length of me key [mm],

2.12 Stem tube and bearings

2.12.1 The length of the bearing in the sternbush next to and supporting the propeller is to be as follows;

a) For watef lubricated bearings which are lined with lignum vilae, rubber composition or staves of approved plastic material the length Is to be not less than *A* limes the rule diameter required for Ihe tailshafl under the liner

b) For bearingswhich arewhile-metal lined, oil lubricated and provided with an approved type of oil sealing gland; the length of the bearing is to be approximately twice the rule diameter required for the lailshaft and is to be such that the nominal bearing pressure will not exceed 0.8 [N/mm^2]. The length of the bearing is to be not less than 1.5 times its rule diameter;

c) For bearings of cast iron, bronze which are oil lubricated and fitted with an approved oil sealing gland; the lenglh of the bearing is, in general, to be not less than 4 times the rule diameter required for the tailshaft;

d) For bearings which are grease lubricaled; the length of bearing is to be not less than A times the rule diameter required for the tailshaft;

e) For water lubricated bearings lined with two or more circumferentially spaced sectors of an approved plastics material, in which it can be shown that the sectors operate on hydrodynamic principles, the lenglh of the bearing is to be such that the nominal bearing pressure will not exceed 0.55.

[N/mm^2]. The length of the bearing is not to be less than twice actual diameter of shaft.

2.12.2 Forced water lubrication Is to be provided for all bearings lined with rubber or plastics and forlhose bearings lined with lignum vitae where the shaft diameter is 380 [mm] or over. The supply water may come from a circulating pump or other pressure.source. The water grooves in the bearings are to be of sample section and of a shape which will be little affected by weardown, particularly for bearings of the plastic type.

2.12.3 The shut off valve or cock controlling the supply of water is to be fitted direct to the after peak bulkhead, or to the sterntube where the water supply enters the slemlube forward of the bulkhead.

2.12.4 Where a tank supplying lubricating oil to Ihe sterntube is fitted, it is to be located above the load water line and is to be provided with a low level alarm device in the engine room.

2.12.5 Where slembush bearings are oil lubricaled provision is to be made for cooling the oil by maintaining water in the after peak tank above Ihe level of Ihe sterntube or by other approved means. Means of ascertaining the temperature of Ihe oil in Ihe sternbush are also to be provided.

2.12.6 The oil sealing glands used for slernlube bearings, which are oil lubricated, are to be of approved type.

Section 3
Propellers

3.1 Scope

3.1.1 The requirements of this Section cover the construction, materials and inspection of propellers.

3.2 Plans and particulars

3.2.1 A plan, in triplicate, of the propeller is to be submitted foi approval together with the following particulars:

a) Maximum shaft power P, in [kW];
b) Revolutions per minule of the propeller at maximum power, R;
c) Propeller diameter, D [m];
d) Pitch at 25 per cent radius (for solid propellers only), $P_{0.25}$ [m];
e) Pitch at 35 per cenl radius (for controllable pitch propellers only), $P_{0.35}$ [mj;
f) Pitch at 70 per cent radius, $P_{07.}$ [m];
g) Length of blade section of the expanded cylindncal at 25 percent radius (for solid propeller only), $L_{O25.}$ [mm]:
h) Length of blade section of expanded cylindrical section art 35 per cent radius (for controllable pitch propellers only) $L_{0.35.}$ in [mm];

i) Rake at blade tip measured at shaft axis (backward rake positive, forward rake negative), K. in [mm]:

j) Number of blades, N;

k) Developed area ratio, a.

3.3 Materials

3.3.1 Castings for propellers and propeller blades are to comply with the requirement of Ch.8, Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels. The specified minimum tensile strength is to be not less than stated in Table 3.4.1.

3.3.2. When it is proposed to use materials which are nol included in Table 3.4.1, details of the chemical composition, mechanical properties and density are to be submitted for approval.

3.4 Design

3.4.1 Minimum blade thickness

3.4.1.1 Where lhe propeller blades are of convenlional design, the thickness, l, of the propeller blades at 25 per cent radius for solid propellers, at 35 per cent for controllable pilch propellers, neglecting any increase due to fillets, is to be not less than :'

a) For fixed propellers

$$t_{0.25} = 1003\sqrt{\frac{AP}{C_n CRN}} + \frac{0.024BKCs}{CC_n}[mm]$$

a) For conlrollable pilch propellers

$$t_{0.25} = 805\sqrt{\frac{AP}{C_n CRN}} + \frac{0.015BKC_S}{CC_n}[mm]$$

where

$t_{0.25}$ = minimum blade thickness required at 25 percent redius.

$t_{0.35}$ = minimum blade thickness required at 35 percent radius ;

C_n = Section modulus coefficient at 25 percent radius or 35 percent radius as applicable.

$= \frac{I_0}{U_f LT^2}$ and is not to be taken

greater than 0.10;

I_o = Moment of inertia of the expanded cylindrical section at 25 per cent radius or 35 per cenl radius, as applicable, about a straight line passing through the center of gravity parallel to the pitch line or to the nose-tail line, in [mm^4];

U_f - maximum normal distance from the moment of inertia axis to points on (he face boundary (tension side) of the Section at 25 per cent radius or 35 per cent radius, as applicable [mm];

L = Length of the blade Section of the expanded cylindrical Section at 25 per cent radius or 35 per cent radius, as applicable, [mm];

T = Maximum thickness of the expanded cylindrical Section as approved at 25 per cent or 35 per cent radius, as applicable [mm];

C_s = Section area coefficient at 25 per cent radius or 35 per cent radius as applicable:

$$= \frac{a_s}{LT}$$

a_s = area of the expanded cylindrical Section at 25 per cent radius or 35 per cent radius, as applicable [mm^2];

f = material constant as per Table 3.4.1;

w = material constant as per Table 3.4.1.

a) For fixed – pitch propellers

$$A = 1.0 + \frac{6.0D}{P_6} + \frac{4.3P_{0.25}}{D}$$

$$B = \left(\frac{4300wa}{N}\right)\left(\frac{R}{100}\right)^2\left(\frac{D}{20}\right)^3$$

$$C = \left(1 + \frac{1.5P_{0.25}}{D}\right)\left(L_{0.25}f - B\right)$$

b) For controllable pitch propellers

$$A = 1.0 + \frac{6.0D}{P_6} + \frac{3.OP_{0.35}}{D}$$

$$B = \left(\frac{4900wa}{N.}\right)\left(\frac{R}{100}\right)^2\left(\frac{D}{20}\right)^3$$

$$C = \left(1+\frac{1.5P_{0.35}}{D}\right)(L_{0.35}f - B)$$

3.4.1.2 Propellers of unusual design or application will be subject to special consideration upon submittal of detailed stress calculations.

3.4.1.3 Fillets at the root of the blades are not to be considered in the determination of blade thickness.

Table 3.4.1 : Material constants

Materials	Specified min. UTS [N / mm^2]	f	w
Manganese teonze Grade Cu 1	440	22.6	8.3
Ni-Mangsnese bronze Grade Cu 2	440	22.9	8.0
Ni -Aluminium bronze Grade Cu 3	590	25.7	7.5
Mn-Aluminium bronze Grade Cu 4	630	25.6	7.5
Cast iron	250	11.77	7.2
Caibon and low alloy steels	400	14.0	7.9
Note: The value of t may be increased by 10 percent for twin screw and outboard propellers of triple screw vessels			

3.4.2 Keyless propellers

3.4.2.1 Where propellers are filled without keys, detailed stress calculations and fitting instructions are to be submitted for approval.

3.4.3 Controllable pitch propellers

3.4.3.1 In the case of controllable - pitch propellers, means are to be provided to lock the blades in ahead position in case of the failure of the pilch operating mechanism.

3.4.3.2 A propeller pitch indicator is to be fitted at each station from which it is possible to control the pitch of the propeller.

3.5 Fitting of propellers

3.5.1 The propeller boss is to be a good fit on the tailshaft cone. The forward edge of the bore of the propeller boss is to be rounded to about 6 [mm] radius.

3.5.2 The exposed part of the lailshaft is to be protected from the action of water by filling all spaces between propeller hub, cap and shaft with a suitable filling material. The propeller assembly is to be sealed at the forward end with a well-fitted soft rubber packing ring. When the rubber ring is fitted in an external gland, the hub counlerbore is to be filled with suitable material, and clearances between shaft liner and hub counterbore are to be kept to a minimum. When the rubber ring is fitted internally, ample clearance is to be provided between liner and hub and lhe ring is to be sufficiently sized to squeeze in to the clearance space when the propeller is driven up on the shaft: and, where necessary, a filler piece is to be fitted in the propeller - hub keyway to provide a flat unbroken sealing for the ring. The recess formed at the small end of the taper by the over hanging propeller hub rs to be packed with red lead putty or rust-preventing compound before the propeller.nul is put on.

3.5.3 Effective means are to be provided to prevent the slackening of the propeller nut.

Section 4
Vibrations and Alignment

4.1 Scope

4.1.1 The requirements of this Section are applicable to main propulsion systems with power exceeding 200 [kW] and auxiliary machinery systems for essential services with powers exceeding 200 [kW]

4.1.2. Unless otherwise advised, it is the responsibility of the Vesselbuilder as the main contractor to ensure, in co-operation with the Engine builders, that the information required by thrs Section rs piepaied and submitted.

4.2 Basic system requirements

4.2.1 The systems are to be free from excessive torsional, axial and lateral vibration, and are to be aligned in accordance with tolerances agreed with the respective manufacturers.

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4.2.2 Where changes are subsequently made to a dynamic system which has been approved, revised calculations are to be submitted for consideration.

4.3 Resilient mountings

4.3.1 Where the machinery is installed on resilient mountings, linear vibration (steady state and transient) is not to exceed the limiting values agreed with the manufacturers of the machinery nor those of the resilient mountings.

4.3.2 Misalignment arising from such vibration is not to impose excessive loading on machinery components within the system.

4.4 Torsional vibration

4.4.1 Torsional vibration calculations, including an analysis of the vibratory torques and stresses for the dynamic systems formed by the oil engines, turbines, motors, generators, flexible couplings, gearing, shafting and propeller where applicable, including all branches, are to be submitted for approval together with the associated plans.

4.4.2 Particulars of the division of power developed throughout the speed range for turbines, or from all intended combinations oil operation in oil engine installations having more than one engine and/or with power take-off systems are to be submitted.

4.4.3 Any special speed requirements for prolonged periods in service are to be indicated, e.g.. range of trawling revolulions per minute. range of operation revolutions per minute with a controllable pitch propeller, idling speed, etc.

4.4.4 The calculations and/or measurements carried out on oil engine installations containing transmission items sensitive to vibratory torque, e.g. gearing, flexible couplings, or generator rotors and their drives, are to take into account the effects of engine malfunction commonly experienced in service, such as cylinder(s) not firing.

4.4.5 Restricted speed ranges will be imposed in regions of speed where stresses are considered to be excessive for continuous running. Similar restrictions will be imposed, or other protective measures required to be taken, where vibratory torques are considered to be excessive for particular machinery items.

4.4.6. Where calculations indicate the possibility of excessive torsionat vibration within the range of working speeds, torsional vibration measurements, using the appropriate. recognized techniques, may be required to be taken from the machinery installation for the purpose of determining the need for restricted speed ranges.

4.5 Axial vibrations

4.5.1 For all main propulsion shafting systems, the VesselbuikJers are to ensure that amplitudes due to axial vibrations are satisfactory throughout the speed range, so far as practicable. Where appropriate, amplrtudes may be reduced by the use of suitable vibration dampers or phasing of propeller and engine, etc.

4.5.2 Unless previous experience of similar installation shows It to be unnecessary. calculations of the shafting system are to be carried out. These calculations are to include the effect of the thrust block seating and the surrounding hull structure taking part in the vibration. The resutt of these calculations or the evidence of previous experience is to be submitted for consideration.

4.5.3 Where calculations indicate the possibility of excessive axial vibration amplitudes wilhin the range of working speeds, measurements using an appropriate recognized technique may be required to be taken from the shafting systems for the purpose of determining the need for .restricted speed ranges.

4.6 Lateral vibrations

4.6.1 For all main propulsion shafting systems, the Vesselbuilders are to ensure that amplitudes due to lateral vibrations are satisfactory throughout the speed range.

4.6.2 Unless previous experience of similar installations shows it to be unnecessary, calculations of lateral, or bending, vibration characteristics of the shafting system are to be carried out. These calculations, taking account of dynamic bearing stiffnesses, are to cover the frequencies gh/ing rise to all critical speeds which may result in significant amplitudes wilhin the speed range, and are to indicate relative deflections and bending moments throughout the shafting system.

4.6.3 The resuRs of these calculations. or the evidence of previous experience, is to be submitted for consideration.

4.6.4. Where calculations indicate the possibility of excessive lateral vibration amplitudes wilhin the range of working speeds, measurements using an appropriate recognized technique may be required to be taken from the shafting system

for the purpose of determining the need for restricted speed rangers.

4.7. Shaft alignment

4.7.1. For main propulsion installations, the shafting is to be aligned to give acceptable bearing reactions, and bending moments at all conditions of vessel loading and operation. The Vesselbuilder is to postion the bearings and construct the bearing seatings to minimize the effects of movements under all operating conditions.

4.7.2. For geared installations, where two or more pinions are driving the final reduction wheel, calculations are to be submitted to verify that shaft alongmnet is such that proper bearing reactions are maintained under all operating conditions.

4.7.3. Shaft alignment is to be verified by measurement.

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Chapter 5

Boilers and Pressure Vessels

Contents

Section

1 General

Section 1

General

1.1 Scope

1.1.1 The requirements of this Chapter are applicable to pressure vessels of seamless and fusion welded construction, and their mountings and fittings, for the following uses :

a) Fired boilers:

b) Exhaust gas healed boilers;

c) Economizers, superheaters, rehealers and steam receivers for, and associated with (a) and(b);

d) Steam healed sleam generators;

e) Other pressure vessels, not included in (a) to (d).

1.1.2. Consideration will be given to arrangements or details of boilers, pressure vecsels and equipment which can be shown to comply with other recognized standards, provided they are not less effective.

1.2 Design pressure

1.2.1 The design pressure is the maximum permissible working pressure and is to be not less than the highest set pressure or any safety valve.

1.2.2 The calculations made to determine the scantlings of the pressure parts are to be based on the design pressure, adjusted where necessaryto take account of pressure variations corresponding to the most severe operational conditions.

1.2.3 It is desirable that there should be a margin between the normal pressure at which the boiler or pressure vessel operates and the lowest pressure at which any safely valve is set to lift, to prevent unnecessary lifting of the safely valve.

1.3 Metal temperature

1.3.1 The metal temperature, T, used to evaluate the allowable stress is to be taken as the actual metal temperature expected under operating condition's for the pressure part concerned, and is to be staled by the manufacturer when plans of the pressure parts are submitted tor consideration.

1.3.2 For boilers, the design metal temperature is not to be taken less than the following values, unless justified by an exact calculation or the temperature drop and is in no case to be taken less than 250°C:

a) For steam heated steam generators. secondary drums of double evaporation boilers, steam receivers and pressure parts of fired pressure vessels nol heated by hot gases and adequately protected by insulation, the metal temperature, T is to be taken as Ihe maximum temperature of the internal fluid;

b) For pressure parts heated by hot gases. T is to be taken as not less lhan 25°C in excess of the maximum temperature of the internal flutd:

c) For combustion chambers of the type used In horizontal wei-back boilers, T "rs to be taken as not less than 50°C in excess of the maximum temperature of the internal fluid:

d) For furnaces, fire boxes, rear-tube plates of dry-back boilers and pressure parts subject

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to similar rates of heat transfer, T is to be taken as not less than 90^0C in excess of the maximum temperature or the internal fluid;

e) For boiler, superheater, rehealer and economizer lubes, the design temperature is to be taken as under:

- For boiler tubes the design temperature is to be taken as not less than saturated steam temperature plus 25°C for lubes mainly subject to convection heat, or plus 50°C fortubes mainfy subject to radiant heal;
- For superheater and reheater tubes, the design temperature is to be taken as not less than steam temperature expected in the part being considered, plus 35°C for tubes mainly subject to convection heat. For lubes mainly subject to radiant heal the design temperature is to be taken as not less than the steam temperature expected in the part being considered, plus 50°C, but the actual metal temperature expected is to be slated when submitting plans:
- The design temperature for economizer lubes is to be taken as not less than 35°C in excess of the maximum temperature of the internal fluid,

1.3.3 In general, any part of boiler drums or headers not protected by tubes, and exposed to radiation from the fire or to the impact of hot gases, is to be prolected by a shield of good refractory material or by other approved means.

1.3.4 Drums and headers of thickness greater than 30 [mm] are not to be exposed to combustion gases having an anticipated temperature in excess of 650"C unless they are efficiently cooled by closely arranged tubes.

1.4 Plans and particulars

1.4.1 The following plans, in triplicate, for boiler and pressure vessels are to be submitted for approval, in so far as applicable:

a) General arrangement, including arrangement of valves and fittings:
b) Sectional assembly;
c) Sealing arrangements;
d) Steam, water drum and header details:
e) Water wall details;
f) Steam and superheater tubing, including the tube support arrangements;
g) Economizer details;
h) Casing arrangement;
i) Reheat section;
j) Fuel oil burning arrangement;
k) Forced draft system;
i) Boiler mountings including steam stop valves, safety valves and their relieving capacities, feed water connections, blow-off arrangements, watergauges, test cocks, etc.

1.4.2 The plans are to include the following particulars, in so far as applicable :

a) Scantlings;
b) Materials;
c) Weld delails;
d) Design pressures and temperatures:
e) Heatin, surface areas of boilers and superheaters;
f) Estimated pressure drop through superheater:
g) Estimated evaporation rate;
h) Proposed setting pressure of safety valves on steam drum and superheater;
i) Pressure vessel class;
j) Details of heat treatment and testing of welds;
k) Calculations of thicknesses, when required;
l) Test pressures.

1.5 Classification of pressure vessels

1.5.1 For Rule purposes, boilers and pressure vessels are giaded as shown in Table 1.5:1.

1.5.2. Pressure vessels which are conslructed in accordance with the requirements of Class 2 or Class 3 will, if manufactured in accordance with the requirements of a superior class, be approved with the scantlings appropriate to that class.

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Table 1.5.1 : Grading of pressure vessels			
	Boilers	**Steam – heated steam generators**	**Other pressure vessels**
Class – 1	P > 3.5	$D_i > \left(\frac{15}{P} - 1\right)1000$	P > 50 or t > 38
Class – 2	P ≤ 3.5	$D_i < \left(\frac{15}{P} - 1\right)1000$	$p \le 50 or D_i > \left(\frac{20}{P} - 1\right)$ 1000 and 16 < t ≤ 38 or material temperature > 150°C
Class – 3			$D_i \le \left(\frac{20}{p} - 1\right)1000 and t \le 16$ and material temperature < 150°C
Notes : P = design pressure, in bar D_i = internal diameter [mm] t = shell thickness [mm]			

1.5.3 In special circumstances relating to service conditions, maleiials, operating temperature. The carriage of dangerous gases and liquids, etc. it may be required lhat certain pressure vessels be manufactured in accordance with the requirements of a superior class.

1.6 Materials

1.6.1 Materials used in the construction of boilers and pressure vessels are to be manufactured in accordance with the requirements of Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels.

1.6.2 The specified minimum tensile strength of carbon and carbon manganese steel plates, pipes, forgings and castings is to be within the following general limits:

a) For seamless and Class 1 and Class 2 fusion welded pressure vessels - 340 – 520 [N/mm^2];

b) For boiler furnaces, combustion chambers and flanged plates - 400 - 520 [N/mm^2].

1.6.3 The specified minimum tensile strength of low alloy steel plates, pipes, forgings and castings is to be within the general limits of 400 - 520 [N/mm^2], and pressure vessels made in these steels are to be either seamless or Class 1 fusion welded.

1.6.4 The specified minimum lensile strength of boiler and superheater lubes is to be within lhe following general limits;

a) Carbon and carbon-manganese steels - 320 - 460 [N/mm^2]:

b) Low alloy steels - 400 - 500 [N/mm^2].

1.6.5 Where it is proposed to use materials other than those specified in Pt.2, Inspection and Testing of Materials, of Rules & Regulations for the Construction and Classification of Steel Vessels, details ot ihe chemical compositions. heat treatmenl and mechanical properties are to be submitted for approval. In such cases the values of lhe mechanical properties used tor deriving the allowable stress are to be subject to agreement by classification society.

1.6.6 Where a fusion welded pressure vessel is to be made ot alloy steel and approval of the scannings is required on the basis of the high temperature properties of the material, particulars of the welding consumables to be used, including typical mechanical properties and chemical composition of the deposited weld metal, are to be submitted for approval.

1.7 Pressure parts of irregular shape

1.7.1 Where pressure parts are of such irregular shape that it is impracticable to design their scantlings by lhe application of formulae given in this Chapter, the suitability of their construction is to be determined by hydraulic proof test of a prototype or by an agreed alternative method.

1.8 Adverse working conditions

1.8.1 Where working conditions are adverse, special consideration may be required to be given to increasing the scantlings derived from the formulae, e.g. by increasing the corrosion or other allowance at present shown in the formulae, or by adopting a design pressure higher than defined in 1.2, to offset the possible reduction of life in service caused by the adverse conditions. In this connection, where necessary, account should also be taken of any excess of loading resulting from :

a) impact loads, including rapidly fluctuating pressures;

b) weight of the vessel and normal contents under operating and test conditions;

c) superimposed loads such as other pressure vessels, operating equipment, insulation, corrosion-tesistani or erosion-resistant linings and piping;

d) reactions of supporetin lugs, rings, saddles, or other types of supports;

or

e) the effect of temperature gradients on maximum stress.

1.9 Design

1.9.1 The boilers and pressure vessels are to be designed in accordance with the requirements of Ch.5. Pt.4, Main and Auxiliary Machinery, of Rules & Regulations for the Construction and Classification of Steel Vessels.

1.10. Manufacture

1.10.1. The manufaclure of boilers and pressure vessels is to be carried out in accordance with lhe requirements of Ch.10, Pt.4, Main and Auxiliary Machinery, of Rules & Regulations for the Construction and .Classification of Steel Vessels.

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Chapter 6

Steering Gears

Contents

Section

1. General
2. Design Criteria

Section 1

General

1.1 General

1.1.1 All vessels are to be provided with reliable steering systems which would allow the vessel to be steered safely having regard to the use and principal dimensions of the vessel. This requirement does not apply to vessels intended to be pushed only. Proposals to fit a hand tiller only will receive special onsideration.

1.1.2 Far vessels not fitted with rudders but equipped with steering propellers / nozzles or Voith-Schneider propellers, see 2.5. For vessels filled with rudders, a steering gear is to be provided.

1.1.3 The steering gear is to be secured to the sealing by fitted bolts, and suitable chocking arrangements are to be provided. The sealing is to be of substantial construction.

1.1.4. The steering gear is to be so designed that the rudder cannot change position when not intended to do so,

1.1.5 Steering geais maybe manually operated (steering chains and lods or hand/hydraulic) or fully powered (electric or electric / hydraulic). However, when the rule diameler of the rudderslock exceeds 150 [mm] in way of tiller, a fully powered steering gear is to be provided,

1.1.6 Manually operated gears or power assisted gears are only acceptable when the operation does not require an effort exceeding 16 [kgf] under normal conditions.

1.1.7. If a fully powered steering gear is fitted an independent secondary means of steering is to be provided.

1.1.8. Requirements for chemical tankers, gas carriers and similar vessels will be specially considered by classification society.

Section 2

Design Criteria

2.1 General

2:1.1 The entire steering gear is to be designed, constructed and installed to allow for a permanent transverse list of up to 15 and for ambienl temperatures commensurate with the area in which he vessel is to operate.

2.1.2 The parts comprising the steering gear are to be so dimensioned thai they can withstand all lhe maximum stresses to which they will be subjected in normal operating conditions. The steering gear is to be sufficiently strong so lhat in the event of rudder touching the bottom or bank, the maximum damage would be limited to deformation or fracturing of the rudder slock.

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2.1.3 The steering gear is to be so designed that a rudder angle or not less than 35 on either side can be obtained.

2.1.4 Where the steering gear is manually operated, on an average one complete turn of the hand wheel is to correspond (o at least 3 of rudder angle.

2.1.5 Where the steering gear is fully powered, it is to be capable of turning the rudder at an average rate of A per second through the entire rudder arc when the rudder Is fully immersed and with the vessel at full speed.

2.1.6 Where fully powered steering gear is provided with a second, manually operated gear, the latter is to permit the vessel to proceed to a mooiing at reduced speed.

2.2 Fully powered steering gear

2.2.1 Fully powered steering gears may be of the direct electric or electric/hydraulic type.

2.2.2 Powered steering gears are to be titled with means to limit the torque exerted by the drive.

2.2.3 In case of failure of the main drive and the secondary drive not engaging automatically, it is to be possible to engage the secondarydrive by hand at the steering position within 5 seconds wilh the rudder in any posrtion.

2.2.1 At the steering station, automatic indication is to be provided as to which drfve is in operation.

2.2.5 If the independent secondary drive is manual the power drive is not to actuate the hand wheel. A device is to be fitted to prevent inadvertent turning-of (he hand wheel when the manual drive is engaged automatically.

2.2.6 Where the main steering gear is power hydraulically operated whilst the secondary steering is a manually operated hydraulic system, the piping of both systems is to be completely separate, and the main installation is to operate without using the steering wheel pump of the secondary installation.

2.2.7 Where both the main and secondary drive are power hydraulic the respective pumps must be driven independently.

2.2.8 Where the secondary pump rs driven by an engine which does not operate continuously whilst the vessel is in motion, means are to be provided to operate the steering gear instantly whilst the emergency engine is gaining the required speed.

2.2.9 The two installations are to have separate pipes, varves controls, etc. Where the independent functioning of the two installations is ensured, they may have common components.

2.3 Manual drive

2.3.1 Where the sole steering installation is a manually operated system, an independent secondary steering system is not required, provided that in the case of a hydraulic system, the dimensioning, construction and layout of the piping precludes deterioration through .mechanical action or fire, and the construction of the steering wheel pump ensures faultless operation.

2.4 Rudder position

2.4.1 If lhe position of the ruddet(s) is not clearly perceivable from the steering station, a reliable rudder angle indicator is to be provided at the steering station.

2.4.2 Any rudder a/igle indicator fitted, is to function for both the main and secondary steering gear

2.5 Rudder propellers and Voith Schneider equipment.

2.5.1 Where a steering propeller/nozzle or Voith Schneider propeller is fitted, two independent control systems are to be provided between the steering station and the propulsion installation.

2.5.2 Where two or more independent steering propulsion installations are fitted, a secondary independent control system is not required provided the vessel remains sufficiently maneuverable in the event of one of the installations failing.

2.6 Tillers, quadrants and connecting rods.

2.6.1 For the requirements regarding rudder, rudder stock, See Pt.3, Ch.12.

2.6.2 All components transmitting mechanical forces to the rudder slock are to have a strength of at least equivalent to the rudder stock in way of the tiller. The combined resultant stress, σ_e, caused by the transmission of rudder torque, Q_r, in tillers, vanes and other power transmitting components is not to exceed 138 [N/mm^2], i.e.

$$\sigma_e = \sqrt{\sigma^2 + 3\tau^2} \leq 138 [N/mm^2]$$

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where.

σ_e = The combined equivalent stress, [N/mm^3]

σ = The bending stress, [N/mm^2]

r = The lofsional shear stress, [N/mm^2]

Q_r = The rudder torque [N-m] calculated as per Pt.3. Ch.12, Sec.3.2;

2.6.3 The section modulus "Z" [cm^3] and the sectional area 'A'[cm^2]of the tiller arms is not to be less than the following ;

$$Z = 0.12Qr\left(1-\frac{x}{R}\right)[cm^3]$$

$$A = 2.0\frac{Qr}{R}x10^{-4}[cm^2]$$

where,
R = The distance [m], from the point of application of the effort on the tiller to the centre of rudder stock; and
x = The distance [m] from the section under consideration tothe centre of the rudder stock.

2.6.4 The boss may be filled on the mdder stock by shrinking with/without key or may be of the split type. The ratio between the mean of outer and inner diameters of the boss is to be not less than 1.75 and Ihe height of the boss is not to be less than the inner diameter of the boss.
2.6.5. Co-efficient of friction Tor shrink fitting is not to be taken greater than 0.17 for dry fitting and 0.15 for oil injection Titling.
2.6.6 In case of split type boss, the total number of joining bolts is to be al least 4. The distance of the centre or the bolts from the centre of the rudder slock is generally to be 1.15du and the thickness of the coupling flange is to be at least 1.1 times the required bott diameter. The thickness of shim to be fitted between two halves before machining is to be 0.0015du. The diameter of the coupling bolt, d_b is to be not less than :

$$d_b = 0.60\frac{d_u}{\sqrt{n}}[mm]$$

where,

d_u = The rudder slock diameter in way of the tiller calculated in accordance with Pt.3, Ch.12, Sec.3;

n = Total number of joining bolts.

2.6.7 The shear area of the key, As, is not to be less than:

$$A_s = \frac{0.18Q_r}{d_m}[cm^2]$$

where.
d_m = diameter of the conical part of the rudderstock at midway of key, [mm]

The keyway is to extend over the full depth of the tiller and have rounded edges. The abutting surface area ol the key, At,, (discounted rounded edges) between the key and the rudder stock or the key and the liller boss is not to be less than:

$$A_b \geq 0.5\ A_s$$

2.6.8 Where higher tensile bolls are used on bolted tillers and quadrants, the yield and ultimate tensile stresses of the bolt material are to be stated on the plans submitted for approval, togelher with full details of the methods to be adopted to obtain Ihe required setling-up stress. Where patent nuts or systems are used, the manufacturer's instructions for assembly should be adhered to.

2.6.9 In bow rudders having a vertical locking pin operated from the deck above, positive means are to be provided to ensure that the pin can be lowered only when the rudder is exactly central. In addition, an indicator is to be fitted at the deck to show when the rudder is exactly central.

2.6.10 Steel-wire rope, chain and other mechanical systems, when these are used for rudder stock diameters of 120 (mm) and less but excluding allowance for strengthening in ice, will be specially considered. In general the breaking strength of rods/chains etc. is not to be less than:

$$\text{Breaking strength} = 6\frac{Q}{R}\ [N]$$

Where R is defined in 2.6.3.

2.7 Locking or brake gear and springs

2.7.1 An efficient locking or brake arrangement is to be fitted to all gears to keep the rudder steady when necessary. In the case of hydraulic

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Steering gears which are fitted with isolating valves on the body of the gear and duplicate power units, an additional mechanical brake need not be fitted.

2.7.2. In bow rudders having a vertical locking pin operated from the deck above, positive means are to be provided to ensure that the pin can eb lowered only when the rudder is exactly central. In addition, an indicator is to be fitted at the deck to show when the rudder is exactly central.

2.7.3. The steering gear, unless hydraulically powered, is to be protected by means of spirings or buffers from damage by impact on the rudder.

2.8 Rudder stops

2.8.1. Suitable stopping arrangements are to be provided for the rudder. Cut – outs on the sterrign engine are to be arranged to operate at a smaller angle of them than those for the rudder.

End of Chapter

Chapter 7

Control Engineering Systems

Contents

Section	
1	General Requirements
2	Essential Features for control and alarm systems
3	Control and supervision of machinery

Section 1

General Requirements

1.1 General

1.1.1 This Chapter applies to all vessels and is in addition to other relevant Chapters of the Rules,

1.1.2 Attention should also be given to any relevant requirements of National, International or Local Authorities which would apply to the vessels in service.

1.1.3 This Chapter stales requirements for systems of automatic or remote control which may be used for controlling the machinery contained in 1.2.2. The design and installation or olher control equipment is to be such that there is no risk of danger due to failure.

1.1.4 The details of control systems will vary wilh the type of machinery being controlled and special consideration will be given to each case.

1.2 Plans

1.2.1 Where control systems are applied to essential machinery or equipment as listed in 1.2.2. Plans are to be submitted In triplicate. They are to include or to be accompanied by:

- Details or operating medium, i.e. pneumatic, hydraulrc or electric, including standby sources of power.
- Description and/or block diagram showing method of operation.
- Line diagrams of control circuits.
- Lists of points monitored.
- List of alarm points.
- List of control poinls.
- Test facilities provided.
- Test shedules

1.2.2 Control systems. Plans are required for the following:

- Ballast systems. Bilge systems.
- Cargo pumping systems for tankers.
- Controllable pilch propellers.
- Electrical generating plant.
- Fire detection systems.
- Main propelling machinery including essential auxiliaries.
- Steam raising plant.
- Transverse Ihrust units,
- Steering gear plant.

1.2.3 Alarm systems. Details of the overall alarm system linking engine room, wheelhouse and, where applicable, accommodation spaces are to be submitted.

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1.2.4 Control Station. Location and details of control station are to be submitted, e.g. control panels.

1.2.5 Standard system. Where it is intended to employ a system which has been previously approved, plans may not be required to be submitted.

1.3 Alarm and control equipment

1.3.1 Major units of equipment associated with control, alarm and safety systems as defined in 1.2 are to be surveyed at the manufacturers' works and the inspection and testing is to be to the Surveyor's satisfaction.

1.3.2 Equipment used in control, alarm and safely systems should whenever practicable, be selected from the List of Type Approved Control and Electrical Equipment published by classification society. A copy of classification society Test Requirements for the Type Approval of Control and Electrical Equipment will be furnished on application.

1.3.3 Assessment of performance parameters, such as accuracy, repeatability and the like, are to be in accordance with an acceptable National or International Standard.

1.4 Alterations or additions

1.4.1 When an alteration or addition to the approved system(s) is proposed, plans are to be submitted for approval. The alterations or additions are to be carried out under survey, and the inspection, testing and installation is to be to the Surveyor's satisfaction.

Section 2
Essential Features for control and Alaram Systems

2.1 General

2.1.1 Where it is proposed to install control and alarm systems to the equipment defined in 1.2.2 the applicable features contained in 2.2 to 2.5 are to be incorporated in Ihe system design.

2.2 Control slation(s) for machinery

2,2.1 A system of alarm displays and controls are to be provided which readily ensure identification of faults in the machinery and satisfactory supervision of related equipment.

2.3 Alarm system

2.3.1 Where an alarm system, which will provide warning of faults in the machinery and control systems is installed, the requirements of 2.3.1 to 2.3.10 are to be satisfied.

2.3.2 Machinery and control syslem faults are to be indicated al the relevant control station to advise duty personnel of a fault condition.

2.3.3. Individual alarm channels may be displayed as group alarms al the main control station (if fitted) or alternatively at subsidiary control stations.

2.3.4 All alarms are to be both audible and visual. If arrangements are made to silence audible alarms Ihey are not to extinguish visual alarms.

2.3.5 If an alarm has been acknowledged and a second fault occurs before the first was rectified then audible and visual alarms are again to operate.

2.3.6 Failure of the power supply to the alarm system is to be indicated.

2.3.7 The alarm system should be designed wilh self-monitoring properties. As far as practical, any fault in the alarm system should cause it to fail to the alarm condition.

2.3.8 The alarm system is to be designed as far as practical to function independently of control systems, such that a failure or malfunction in these systems will not prevent the alarm from operating.

2.3.9 Disconnection or manual overriding of any part of the alarm system should be clearly indicated.

2.3.10 The alarm system is to be capable of being tested.

2.4 Control systems

2.4.1 Control systems fer machinery operations are to be stable throughout their operating range.

2.4.2. Failure of the power supply to a control syslem for propulsion machinery and associated systems is to operate an audible and visual

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alarm.

2.4.3 When remote or automatic controls are provided, sufficient instrumentation is to be fitted at the relevant control stations to ensure effective control and indicate that lhe system is functioning correctly.

2.4.4 Where valves are operated by remote or automatic control, the system of control should include the following safety features:

(a) Failure of actuator power should nol permit a closed valve to open inadvertently.
(b) Positive indication is to be provided at the remote control station for the service to show the actual valve position or alternatively that the valve is fully open or closed. Valve position indicating systems are to be of an approved type.
(c) Equipment located in places which may be flooded should be capable of operating when submerged.
(d) A secondary means of operating the valves which may be local manual control is to be provided.

2.5 Fire detection alarms systems

2.5.1 Where an automatic fire detection system is to be fitted in a machinery Space the requirements of 2.5.2 to 2.5.9 are to be satisfied.

2.5.2 A fire detector indicator panel is to be located in such a position that a fire in the machinery spaces will not render fi inoperative.

2.5.3 The audible fire alarm is to have a characteristic tone which distinguishes it from any other alarm system. The audible Tire alarm fs to be audible on all parts of the bridge and in the accommodation areas.

2.5.4 The alarm. system should, so far as practicable, be designed with self-monitoring properties.

2.5.5 Failure of power supply to the alarm system is to be indicated.

2.5.6 Detector heads of an approved type are to be located in the machinery spaces so that all potential fire outbreak points are guarded.

2.5.7 The fire detection syslem is to be capable of being tested.

2.5.8 It is to be demonstrated to the Surveyor's satisfaction that detector heads are so located that air currents will not render the system ineffective.

2.5.9. A drawing showing lhe location of the fire detector heads and the fire indicator panel, is to be submitted.

Section 3

Control and Supervision of Machinery

3.1 General

3.1.1 When machinery, as defined in 1.2.2, is fitted with automatic or remote controls so that under normal operating conditions it does not require any manual intervention by the operators then it is to be provided with the arrangements specified in 3.2 to 3.7. Alternative arrangements which provide equivalent safeguards will be considered.

3.2 Oil engines for propulsion purposes

3.2.1 The following systems are to be provided with alarms:

System	Alaram
Lubricating oil pressure for the engine including gearing	Low
Lubricating oil pressure for the engine including gearing	Failure, see 3.2.2.
Cooling system (s) temperature	High
Cooling System (s) temperature	Excessively high, see 3.2.3.

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3.2.2 In the case of lhe lubricating oil syslem, in addition to the alarm indication as required by

3.2.1. at complete loss of lubricating oil the engine is to be slopped automatically or alternatively a second and separate alarm is to be provided giving audible and visible warning in the wheelhouse and in the engine room. The circuit and sensor employed for this automatic stop or alarm are to be additional to the alarm circuit and sensor required by 3.2.1.

3.2.3 In the case of cooling sysfem(s), in addition to the alarm indication as required by 3.2.1. a shutdown system for excessively high temperatures may be fitted, which is to be independent of the alarm system.

3.2.4 Prolonged running in a restricted speed range is to be prevented automatically, alternatively, indication of restricted speed ranges is to be provided al each control station.

3.3 Boilers

3.3.1 A system of water level detection is to be tilled which will operate alarms and shut off automatically the oil supply to the burners when the water level falls to a predetermined low level.

3.3.2 The oil fuel is to be shut off aulomatically from the burners, and alarms are to operate on Flame failure and failure of combustion air supply delected by either low pressure at the fan until to slopping of the fan motor.

3.3.3 Where the burner flame(s) is/are extinguished and re ignited automatically in response to steam demand then after tolal flame failure re-ignition shall not take place until lhe furnace has been purged of explosive gases.

3.4 Auxiliary engines

3.4.1 The following systems for auxiliary engines of more than 37 kW {50 shp) are to be provided with alarms:

System	Alaram
Lubricating oil pressure	Low *
Cooling system temperature	High *
* These alarms may be combined with an automatic shutdown system, if fitted.	

3.5. Remote conrol for propulsion machinery

3.5.1. The following systems are to be provided with alarms :

System	Alaram
Operating medium for hydraulic or pneumatic coupling in propulsion system.	Low pressure
Operating medium for hydraulic or pneumatic remote control system for main engine.	Low pressure
Electrical supply to remote control system for main engine	Loss of supply

3.6 Controllable pilch propellers and transverse thrust units

3.6.1 Preteired alarms and safeguards are indicated in 3.6.2 to 3.6.4.

3.6.2 In the case of main propulsion systems, means are to be provided to prevent the engines and shafting being subjected to excessive torque due to changes in propeller pitch, alternatively an engine overload indicator may be fitted at each station for wtiich il is possible to control the pilch of the propeller.

3.6.3 Where transverse thrust units are remolefy controlled, means are to be provided al the remole conlrol station to slop the propulsion unit.

3.6.4. The following systems are to be provided with alarms:

System	Alaram
Hydraulic system pressure	Low
Power supply to the control system between the remote control station and hydraulic actuator.	Loss of supply

3.7 Steering gear

3.7.1 For power operated steering gear, safeguards and alarms are to be provided as indicated in 3.7.2 and 3.7.5.

3.7.2 Provision should be made at the bridge to ensure that the steering gear may be rapidly and effectively transferred to an alternative power and control system. Which may be manual.

3.7.3 Where the alternative steering gear system is also power operated this system should be independent of the main power system.

3.7.4. The control system for the alternative steering gear system required by 3.7.2 is to be

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Independent of the main steering gear control system.

3.7.5. The following systems are to be provided with alarams :

System	Alaram
Steering gear power system (s)	Failure
Steering gear control system (s)	Failure
Steerign gear hydraulic oil tank level	Low

3.8. Main propulsion shafting.

3.8.1. Where a tank supplying lubricating oil to the sterbush is fitted, it is to be located above the load waterline and is to be provided with a low level alaram.

End of Chapter

Chapter 8

Spear Gear

Contents

Section
1 General

Section 1
General

1.1 General

Adequate spare parts for the propelling and essential auxiliary machinery togethei with necessary tools for maintenance and repair are to be readily available for use.

1.1.2. Spare parts are to be supplied and their location is to be the responsibility of the Owner but must take in to account the' design and arrangements of the machinery and the intended service and operation of the vessel. Account should also be laken of the recommendations of the machinery manufacturer' and any applicable statutory requirements of the country of registration of the vessel.

1.2 Table of spare parts

1.2.1 For guidance purposes spate parts for main and auxiliary machinery installations are shown in the following Tables:-

- Table 1.2.1 - Spare parts for main internal combustion engines:
- Table 1.2.2 - Spare parts for auxiliary boilers;
- Table 1.2.3 - Spare parts for auxiliary air compressors.

Table 1.2.1. Maininternal combustion engines

Sr.	Item	Spare Part	Qty.
1	Main thrust block	Pads for one face of thrust block	1 Set
		Complee white metal thrust shoe of soild ring type	1
		Inner and outer race with rollers, where roller thrust bearings are fitted.	1
2	Cylinder valves	Exhaust valves, complete with casings, seats, springs and other fittings for one cylinder	1 set
		Air inlet valves, complete with casings, seats springs and other fittings for one cylinder	1 set
		Startingair valves, complete with casing, seat, spring and other fittings.	1
		Relief valve, complete	1
		Fueld valves of each size and type fitted complete with all fittings, for one engine.	1 / 4 Set
3		Special gaskets and packing of each size and type fitted for cylinder cover and cylinder liner for one cylinder	1 set

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Table 1.2.2. Auxiliary boilers			
Sr.	**Item**	**Spare Part**	**Qty**
1.	Tube stoppers or plugs	Tube stoppers of plugs, of each size sued, for boiler superheater and economizer tubes	10
2.	Fire bars	Fire bars for one boiler, whiere coal fired	Half set
3.	Oil fuel burners	Oil fuel burners complete, for one boiler	1 set

Table 1.2.3. Auxiliary air compressor			
Sr.	**Item**	**Spare Part**	**Qty**
1.	Piston rings	Rings of each size fitted for one piston	1 set
2.	Valves	Suction and delivery valves, complete, of each size fitted	Half Set

End of Chapter

Annexutre – V

(See rule 22)

Electrical Installations – Equipment and Systems

Contents

Section	
1.	General Requirements
2.	System Design
3.	Cables
4.	Switchboards
5.	Control Gear
6.	Rotating Machines – Construction and Testing
7.	Transormers – Construction and Testing
8.	Miscellaneous Equipment
9.	Trials

Section 1

General Information

1.1. General

1.1.1 The requirements of this Chapter apply to self-propelled and non self-propelled vessels for service on inland waterways unless otherwise stated. Attention should also be given to any relevant applicable requirements of National or Local Authorities.

1.1.2 In passenger vessels, services essential for safely are to be maintained under emergency conditions and the safety of vessel and personnel from electrical hazards is to be assured.

1.1.3 Electrical installations are to be constructed and installed in accordance wrth the relevant sections of this Chapter and are to be inspected and tested by the Surveyors. Compliance with the requirements of an acceptable National or International Standard may be accepted as meeting the requirements of this Chapter, subject to inspection and testing by the Surveyors.

1.1.4 Classification society will be prepared to give consideration to special cases or to arrangements which are equivalent to the Rules, Consideration will also be given to the electrical arrangements of small vessels and vessels to be assigned class notation for a specified limited service.

1.2 Plans

1.2.1 The plans and particulars in 1.2.2 to 1.2.4 are to be submitted in triplicate for approval.

1.2.2 Electrical Equipment: The arrangement plan and circuit diagram of lhe switchboard(s). Diagrams of the wiring system including cable sizes, type of insulation, normal working current in the circuits and the capacity, type and make of proteclivè devices. Calculations of short circuit currents at main busbars and the secondary side of transformers are to be submitted.

1.2.3 Oil tankers, and similar vessels: A general arrangement of the vessel showing hazardous zones or spaces and the location of electrical equipment in such zones or spaces. A schedule of sale type elecirical equipment located in hazardous zones or spaces giving details of the type of equipment fitted. the Certifying Authority, lhe certificate number and copies of the certificale.

1.2.4 Centralised, remote or automatic controls: See Ch.7.

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1.3 Additions or alterations

1.3.1 Additions of alterations, (temporary or permanent) to the approved load of an existing installation are not to be made until it has been ascertained that the current carrying capacity and the condition ot the existing accessories, conductors and switchgear are adequate for the proposed modification.

1.3.2 Plans for the proposed modifications are to be submitted for approval and the alterations or additions are to be carried out under the inspection, and to the satisfaction of the Surveyors.

1.4 Application

1.4.1 Except where a specific statement is made to the contrary, all requirements of this Chapter are applicable to both alternating current and direct current installations,

1.4.2 Direct current equipment is to operate satisfactorily under voltage fluctuations of plus 6 per cent and minus 10 per cent.

1.4.3 Alternating current equipment is to operate satisfactorily under voltage fluctuations of plus 6 per cent and minus 10 per cent at rated frequency, and under frequency fluctualions of $\pm$ 5 per cent at rated voltage.

1.4.4 Contactors and similar electromagnetic equipment are not to drop out at or above 85 per cent rated voltage.

1.4.5 For D.C. installations supplied by batteries. consideration is to be given to the supply voltage variations between the battery's full charged and minimum charged voltages. For installations with float charging, the maximum charging voltage is also to be considered.

1.5 Ambient reference conditions

1.5.1 The rating of electrical equipment is to be suitable for the temperature conditions associated with the geographical limits of the intended service. See also Ch.1.

1.6 Location and construction

1.6.1 Electrical equipment is to be placed in accessible and adequately lighted spaces clear of flammable material and heat sources. The spaces should be well ventilated, and the equipment should not be exposed to risk of-mechanical injury or damage from water, excessive moisture, steam, oil or any other dangerous fluid. Where necessarily exposed to such hazards, the equipment is to be suitably constructed or enclosed.

1.6.2 Live parts are to be efficiently shielded from any accidental contact.

1.6.3 All electrical apparatus and equipment is to be constructed and installed so as to avoid injury or electrical shock when handled or touched in the course of normal operation.

1.6.4 All nuts and bolls/screws used to connect or secure current carrying parts and working parts are to be effectively locked, to prevent them from working loose during operation.

1.7 Earthing

1.7.1 All non-current-carrying exposed metal parts of electrical machines or equipment are to be effectively earthed.

1.7.2 All accessible non-current-carrying metal parts of portable electrical apparatus rated in excess of 55 volts are to be earthed through a suitable- conductor nless equivalent safety provisions are made such as by double insulation or by an isolating transformer.

1.7.3 In general earthing connections are to be equal to the cross section of the current-carrying conductor up to 16 [mm^2]. Above this figure they are to be equal to at least half the cross section of the current carrying conductor with a minimum of 16 [mm^2]. Earthing connections which are not made of copper are not have a conductance not less than that specified for a copper earthing conneclion. These are to be securely installed and protected where necessary against mechanical damage and electrolytic corrosion. These are to be made in an accessible location and secured at both ends by corrosion resistant screws or clamps with cross section corresponding " to the earth conductor. Such screws or clamps are not to be used for other purposes. Suitable washers and conductor terminals are to be used so that a reliable contact is ensured.

1.7.4 The metallic sheaths of cables other than lhe measuring circuits are to be earthed at their two ends.

1.8 Creepage and Clearance

1.8.1 Distance between live parts and between live parts and earthed metal, whether across surfaces or in air, are to be adequate for the working voltages considering the nature of the insulating material and the transient over voltages developed by switch and fault conditions.

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1.9 Electrical equipment for use in explosive gas atmospheres

Where the Rules require electrical equipment to be of a "safe type", such equipment is to be certified for the gases/vapours involved. The equipment should conform to IEC publication 79. "Electrical Apparatus for Explosive Gas Atmospheres", or an equivalent national standard.

1.9.2. Copies of type test certificate by a competent independent Testing Authority are to be made available.

1.9.3 When "safe type" equipment is permitted in hazardous zones or spaces all switches and protective devices are to interrupt all lines or phases and, where practicable, are to be located in a non-hazardous zone or space unless specifically permitted otherwise. Appropriate labels of non-flammable material are to be permanently affixed to such equipment, switches and protective devices tot identification purposes.

Section 2
System Design

2.1 Design

2.1.1 Supply and distribution systems

2.1.1.1 The following systems of generation and distribution are acceptable for parallel systems constant voltage :-

a) d.c. two-wire insulated.
b) a.c. single-phase two-wire insul3led,
c) a,c. three-phase, three-wire insulated,
d) a,c. three-phase, four-wire with neutral earthed but without hull return.

2.1.1.2 Systems ol generation and distribution, other than those specified above, will, upon application, be given special consideration.

2.1.2 Earth indication

2.1.2.1 Every insulated distribution system is to be provided with lamps or olher means to indicate the slate of insulation from earth. Where lamp indicators aie used, the lamps are to be of the metal filament type and their power is not to exceed 30 watts.

2.1.3 Number and rating of generating sets

2.1.3.1. The number and rating of service generaling sets are to be adequate to ensure the operation of services essential for the propulsion and safety of the vessel.

2.1.3.2 On oil tankers and similar vessels, where electrical power is required lot essential equipment, the generating plant and converting plant is to be of such capacity that this essential equipment can be opeiated satisfactorily even wilh one generaling set or converting set out of aclion. of power in

2.1.4 Emergency source passenger vessels

2.1.4.1 All passenger vessels are to be provided wilh an emergency source of electrical power. On vessels having a rule length of 25 [m] or more, the emergency source is to be situated outside the engine room and the space is to be constructed of watertight and fire resisting bulkheads and decks.

2.1.4.2 Where emergency generating sets are fitted they are to be capable of being started readily when cold.

2.1.4.3 If hand starting is demonstrated to be practicable, alternative means of starting are not required. Where hand starling is not practicable, other means are to be provided and, in general, should provide for at least 12 starts in a period of thirty minutes without recourse to sources within the machinery space.

2.1.4.4 The emergency source of power is to be either:

(a) A generator driven by a suitable prime mover with an independent fuel supply and with satisfactory starting arrangements, the fuel used is to have a flash point of not less than 43^0C or

(b) An accumbulator (storage) battery capable of carrying the emergency load without rechanrging or excessive voltage drop.

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2.1.4.5 An indicator is to be mounted in the machinery space, or in the wheelhouse, to indicate when any accumulator battery filled in accordance with 2.1.4.4 is being discharged.

2.1.4.6 The emergency switchboard is to be installed as near as is practicable to the emergency source of power.

2.1.4.7 The emergency switchboard may be supplied from the main switchboard during normal operation.

2.1.4.8 The power available is to be sufficient to supply all services necessary for the safety of passengers and crew in an emergency, due regard being paid to such services as may have to be operated simultaneously. Special consideration is to be given to emergency lighting in all alleyways, stairways and exits, in the machinery spaces and in the control stations where radio, main navigating or central fire recording equipment or the emergency generator is located, to fire detection and alarm systems, to the emergency fire pump if electrically driven, automatic sprinkler systems if fitted, and to navigation lights. The power is to be adequate for a period of at least 3 hours.

2.1.5 Essential services

2.1.5.1 Where essential services are duplicated, they are to be served by individual circuits separated throughout their length as widely as is practicable and without the use of common feeders, protective devices or control circuits.

2.1.6 Diversity factor

2.1.6.1 Circuits supplying two or more final sub-circuits are to be rated in accordance with the iriial connected load subject, where justified, to the application of a diversity lactor. Where spare ways (feeders) are provided on' a section or distribution board, an allowance for future increase of load is to be added to the total connected load before application of any diversity factor.

2.1.6.2. The diversity factor maybe applied when calculating cable size and when calculating the rating of switchgear and fusegear.

2.1.6.3. The diversity factors are not applicable to supply cables to distribution switchboards for lighting and healing.

2.1.7. Lighting circuits

2.1.7.1 Lighting circuits are to be supplied by final sub-circuits, which are separate from those for heating and power. This provision need not be applied to cabin fans and small wardrobe heaters.

2.1.7.2 A final sub-circuit of rating exceeding 15 amperes is not to supply more than one point.

2.1.7.3 A final sub-circuit of rating 15 amperes or less is not to supply more than the following number of lighting points; -

10 for 24-55 V circuits
14 for 110-127 V circuits
18 for 220-250 V circuits

This provision is nol applicable to final sub-circuits for cornice lighting, panel lighting and electric signs where landholders are closely grouped. In such cases, the number of points is unrestricted provided ihe maximum operating current in the sub-circuit does not exceed 10 amperes.

2.1.7.4 Lighting of unattended spaces, such as cargo spaces is to be controlled by multi-pole linked switches located outside such spaces. Provision is to be made for the complete isolation of these circuits and locking in the "OFF" position of the means of control.

2.1.7.5 Emergency lighting is to be fitted in accordance with 2.1.4.

2.1.6 Motor circuits

2.1.8.1 A separate final sub-circuit is to be provided for every motor required for essential services and for every motor of 1 [kW] or more.

2.1.9 Motor control

2.1.9.1 Every electric motor is to be provided with an efficient means of starting and stopping so placed as to be easily accessible to the person controlling the motor.

2.1.9.2 Every motor required for essential services and every motor of 0.5 [kW] or morels to be provided with the control apparatus as mentioned in 2.1.9.4 to 2.1.9.8.

2.1 9.3 When motor control gear is being selected, me maximum current of the motor is to be taken as its rated full load current.

2.1.9.4 Efficient means of isolation are to be provided so that all voltage may be cut off from the motor and any associated apparatus including any automatic circuit breaker.

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2.1.9.5 Where the primary means of isolation (viz. thai provided at the switchboard, section board or distribution fuse board) is remote from a motor, one of the following provisions is to be made :-

a) An additional means of isolation fitted adjacent to the motor; or

b) Provision made for locking the primary means of isolation in the OFF position; or

c) Provision made so thai the fuses in each line can be readily removed and retained by authorized personnel.

2.1.9.6 Means to prevent the undesired restarting after a stoppage due to low volts or complete loss of volts are to be provided. This does nol apply to motors where a dangerous condition might result from lhe failure to restart automatically e.g. steering gear molor. It is however, to be ensured that lhe lotal starling current of motors having automatic re-start will nol cause excessive voltage drop or overcurrent on the installation.

2.1.9.7 Means for automatic disconnection of the supply in the event of excess current due to mechanical overloading of the motor are to be provided. (This does nol apply to steering gear motors).

2.1.9.8 Where fuses are installed to protect polyphase motor circuits, means are to be provided to protect the motor against unacceptable overload in the case of single phasing.

2.1.10 Remote stops for ventilation fans and pumps

2.1.10.1 Ventilating fans for machinery and cargo spaces are to be provided with means for slopping lhem from easily accessible control stations located outside such spaces.

2.1.10.2. Motors driving forced and induced draught fans, independently driven pumps delivering oil to main propulsion machinery for bearing lubrication and piston cooling, oil fuel lransler pumps, oil fuel unit pumps and other similar fuel pumps, fuel and lubricating oil purifiers and iheir attached pumps aie to be fitted with remote controls situated outside the space concerned so thai ihe electrical supply thereto can be disconnected in the event of fire arising in the space in which they are located.

2.1.10.3 In passenger vessels all power ventilation systems, except cargo and machinery spaces ventilation, which is to be in accordance with 2.1.10.1, are to be fitted with master controls so that all fans may be stopped from either of two separate positions which are to be situated as far apart as practicable.

2.1.11 Steering gear

2.1.11.1 Where electrical control of the steering system is fitted, an independent alternative control system is to be installed. This may be a duplicate electrical control system or control by other means.

2.1.11.2 Provision istobemadeon the bridge to transfer the steering control instantaneously to lhe alternative means of conlrol.

2.1.11.3 Indicators for running indication of steering gear motors are to be installed on lhe bridge.

2.1.11.4 Audible and visual alarms are to operate at the steering positions for failure of steering gear power system and failure of steering gear control system.

2.1.12 Fire dejection, alarm and extinguishing systems on passenger vessels

2.1.12.1 Where electrically driven emergency fire pumps are installed in accordance with Ch.9 the supply to such pumps is not to pass through the main machinery space.

2.1.12.2 Any fire alarm system is to operate both audible and visual signals at the fire detection control slation(s).

2.1.13 Navigation lights

2.1.13.1 Each navigation light is to be controlled and protected in each insulated pole by a switch and fuse or circuit breaker mounted in the distribution board.

2.1.13.2 Automatic indication of failure is to be provided unless the lights are visible from the bridge.

2.1.13.3. Any statutory requirements of the country of registration are to be complied with and may be accepted as an alternative to the above.

2.1.14 Size of batteries and charging facilities

2.1.14.1 Where batteries are used for starling main engines, they are to be of adequate capacity to meet the requirements of Ch.4.

2.1.14.2 Adequate charging facilities are to be provided, and where batteries are charged from line voltage by means of a series resistor, protection against reversal of current is to be provided when the charging vollage is 20 per cent of line voltage or higher. Means are also to be provided to isolate the batteries from the low voltage system when being charged from a higher voltage system.

2.1.15 Heating and cooking equipment

2.1.15.1 Every healing or cooking appliance rs to be controlled as a complete unit by a multi-pole linked switch mounted in the vicinity of the appliance.

2.1.15.2 In the case of small heaters, for individual cabins or similar small dry accommodation spaces where lhe floor coverings, bulkheads and ceiling linings are of insulating materials, a single pole switch is acceptable.

2.1.15.3 Heating arrangements ol the exposed element type are not to be used in any location.

2.1.16 Temporary external supply/shore connection.

2.1.16.1 Where arrangements are provided for the supply of electric power from a source on shore or elsewhere, a connection box is to be installed In an easily accessible location in a manner suitable for the convenient reception of flexible cables from lhe external source. This box should contain a circuit-breaker or isolating switch and fuses and terminals of ample size and suitable shape to facilitate a satisfactory connection. The mechanical stress of the portable cable is to be conveyed directly to the metallic framework and not to electrical connectors. Suitable cables, permanently fixed are to be provided, connecting the circuit breaker/isolating switch in the connection box to a linked switch and/or circuit breaker at the main switch board.

2.1.16.2 For alternating current systems an earthed terminal is to be provided for the reception of three-phase external supplies with earthed neulrals.

2.1.16.3. The external conneclion is to be provided with an indicator at the main switchboard in order to show when the cable is energized:

2.1.16.4 Means are to be provided for checking the polarity (for direct current) or the phase sequence (for three-phase alternating current) of the incoming supply. This device should be connected between the incoming connectors and the interrupting device in the connection box.

2.1.16.5 A notice is to be provided at the connection box giving complete information on the system of supply and the normal vohage (and frequency for alternating current) of lhe vessel's installed system. Full details of the procedure for effecting the connection are to be given on this notice.

2.1.16.6 Alternate arrangements for providing a temporary external supply will be specially considered.

2.2 Protection

2.2.1 General

2.2.1.1. Installations are to be protected against accidental over currents including short circuits. The choice, location and characteristics of the protective device are to provide complete and co-ordinaled protection to ensure:-

a) Elimination of the fault to reduce damage to the system and hazard of fire.

b) Continuity of service so as to maintain, through the discriminative action of the protective devices, the supply to circuits not directly affected by the fault.

2.2.2 Protection against overload

2.2.2.1 Protection against overloads may be provided by cifcurt-breakers, automatic switches or fuses. The tripping characteristics of these devices are to be appropriate to the system. Fuses rated above 320 amperes are not to be used for protection against overload, bul maybe used for short- circuit protection.

2.2.3 Protection against short-circuit

2.2.3.1 Protection against short-circuit currents is to be provided by circuit-breakers or fuses.

2.2.3.2 The breaking capacity of every protective device is to be not less than the maximum value of the short-circuit current which can flow at the point of installation at the instant of contact separation.

2.2.3.3 The making capacity of every circuit-breaker or switch intended to be capable of being closed, if necessary, on short circuit, is to be not less than the maximum value of the short-circuit current, at the point of installation. On alternating current this maximum value corresponds to the peak value allowing for maximum asymmetry.

2.2.3.4 Every protective device or contactor nol intended for short circuit interruption is to be adequate for the maximum shorl-circuil current which can occur at the point of installation having regard to the time required for the short circuit to be removed.

2.2.3.5 In the absence of precise data of rotating machines the following short-circuit currents at the machine terminals are to be assumed. The short circuit current is to be the sum of short circuit currents of generators and that of motors;

a) Direct current systems
Ten times full load current tor generators normally connected (including spare; Six times full load current tor motors simullaneously in service;

b) Alternating current systems.
Ten times full load current for generators normally connected (including spare) simultaneously in service.

Three limes full toad current for moiors simullaneously in service.

2.2.4 Combined circuit-breakers and fuses.

2.2.4.1 The use of circuit-breaker of braking capacity less than the prospective short circuit current at the point ol installation is permitted, provided that it is preceded on the generator side by fuses, or by a circuit-breaker having at least the necessary breaking capacity. The generator breakers are nol to be used to; this purpose.

2.2.4.2 Fused circuit-breakers wilh fuses connected to the load side may *be* used where operation of the circuit-breaker and fuses is co ordinated.

2.2.4.3 The characteristics of lhe arrangement are to be such that :

a) When the short-circuit current is broken the circuil-breaker on the load side is not to be damaged and is to be capable of further service.
b) When the circuit – breaker is closed on the hsort circuit current the remainder of the installatin is not to be damaged. However, it is admissible that the circuit-breaker on lhe load side may require servicing after the fault has been cleared.

2.2.5 Protection of circuits

2:2.5.1Short circuit protection is to be provided in each live pole of a direct current system and in each phase of an alternating current system.

2.2.5.2 Protection against overloads is to be provided as follows;-

a) Two-wire direct current or single-phase alternating current system - at least one line or phase.
b) Insulated three-phase alternating current system - at least two phases.
c) Earthed three-phase alternating current system - all three phases.

2.2.5.3 No fuse, non-linked switch.or non-linked circuit-breaker is to be inserted in an earthed conductor. Any swiich or circuit-breaker lined is to operate simultaneously in the earthed conductor and the insulated conductors.

2.2.5.1 These requirements do not preclude the provision (for test purposes) of an isolating link to be used only when the other conductors are isolated.

2.2.6 Protection of generators

2.2.6.1In addrtion to over-current protection, the provisions of 2.2.6.2 to 2.2.6.7 are 10 be adhered to as a minimum.

2.2.6.2 For generators nol arranged to run in parallel a mulli-poie circuil-breaker arranged to open simultaneously all insulated poles or in the case of generators tated at less than 50 [kW] a multi-pole linked switch with a fuse in each insulated pole on ine genera'.c: side is to be provided. The fuse rating in such cases is to be maximum 125 per cent of the generator rated current.

2.2.6.3. for generations arranged to run in parallet a circuit – breaker arranged to open simultaneously at insulate sales to be provided. This circuit breakets to be provided with :

a) For direct current generators, instanaeous reverse – current protection operating at not more than 15 per cent rated current.

b) for alternating current generation.

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i) A reverse-power protection, with time delay selected and sel wiihin the limits of 2 per cent to 15 per cent of full load to a alue fixed in accordance with characteristics of primemovers.

ii) A device for protection against the effects of parallel connection in opposite phase.

2.2.6.4 The reverse-current protection is to be adequate to deal with the reverse-current conditions emanating from the network, e.g. from winches. The reverse-power protection specified for ailernating current generators may be replaced byotherdevicesensuring adequate projection of the prime movers.

2.2.6.5 Generator circuit-breakers are normally to be provided wilh under votlage release.

2.2.7 Protection of feeder circuits

2.2.7.1 Isolation and protection of each main dislribulion circuit is to be ensured by a mulli-pole circuit-breaker or multi-pole switch and fuses. The provisions of 2.2.2. 2.2.3 and 2.2.5 are to be complied with, The protective devices are to allow excess current to pass during the normal accelerating period of motors. Where multi-pole swilch and fuses are used, the fuses are generally to be inslalled between the busbars and the switch.

2.2.7.2 Circuits which supply motors fitted with overload protection may be provided with short-circuit protection only.

2.2.7.3. Motors of rating exceeding 0.5 [kW] are to be protected individually against overload and short- circuit. The short-circuit protection can be provided by the same protective device for the motor and its supply cable. The overload protection may be replaced by an overload alarm, if desired by the Owner.

2.2.8 Protection of power transformers

2.2.8.1 The primary circuits of power transformers ate to be protected against short- circuit byeircuil-bieskers or fuses. The rating of fuses or the setting for overcurrenl releases of circuit breakers is not to exceed 125 per cent of rated primary current.

2.2.8.2 When transformers are arranged to operate in parallel, meansare to be provided for isolation of the secondary circuits. Switches and circuit-breakers are to be capable of withstanding surge currents.

2.2.9 Protection of lighting circuits

2.2.9.1 Lighting circuits are to be provided with overload and short- circuil protection.

2.2.10 Protection of meters, pilot lamps capacitors and conifol circuits

2.2.10.1 Protection is to be provided or voltmeters, voltage cils of measuring instrumenls earth indicating devices and pilot lamps, together with iheir connecting leads by means of protective devices Titled to each insulated pole or phase.

2.2.10.2 A pilot lamp installed as an integral part of another item of equipment need not be individually protected', provided il is lilted in the same enctosure. Where a fault in a pilot lamp would jeopardise the supply to essential equipment such lamps are to be individually protected.

2.2.11 Protection of batteries

2.2.11.1 Accumulator batteries olher than engine starling batteries are to be protected against short circuit by devices, in each insulated pole, plgced at a position adjacent to the battery compartment.

2.2.12 Protection of communication circuits

2.2.12.1 Communication circuits olher than those supplied from primary batteries are to be protected against overload and short-circuit,

Section 3

Cables

3.1 General

3.1.1 Cables are to be in accordance with an acceptable National or International Standard, due legard being given to the ambient conditions stated in 1.5.

3.2 Insulating materials

3.2.1 Permitted insulating materials with maximum rated conductor temperatures are given in Table 3.2.1.

3.2.2 The rated operating temperature of the insulating material is to be at least 10°C higher than the maximum ambient temperature liable to be produced in lhe space where the cable is installed.

3.2.3 Where a rubber or rubber like material with maximum conductor lempeialure greater ihar. 60°C is used, it is to be readily identifiable.

3.3 Sheaths and protective coverings

3.3.1 Cables are to be protected by one or more of the following, and the material of the shealh or protective coveting is to -be compalible wrlh the material of the insulation:-

a) Shealh
 Lead-alloy
 Copper
 Non-metallic

b) Protective covering
 Steel-wire armour
 Steel-tape armour
 Metal-braid armour (basket weave)
 Fibrous braid

3.3.2 Unsheathed cables, e.g. rubber insulated taped and braided or equivalent, may be used only if installed in conduil.

3.3.3 Non-metallic sheath : Polychloroprene compound, polyethytene chloride compound and chlorosulphorated polyethylene may be used lor impervious sheaths. Other compounds will be given due consideration.

Table 3.2.1. : Insulating materials

Insulating Materials	Max. rated conductor temp. °C
Elastomeric Compounds	
Natural or synthetic rubber (general pupose)	60
Rubber	
Butyl rubber	80
Ethylene propylene rubber	85
Silicone rubber	95
Thermoplastic compounds	
Polyvinyl chlorider (General purpose)	60
Polyvinyl chlorider (heat resisting quality)	75
Other Materials	
Minerals	95

Notes :

1. Silicone rubber and mineral insulation may be used for higher temperatures (up to 150°C for silicone rubber and upto 250°C for mineral insulation) when installaed where they are not liable to be touched by personnel, Proposals for such installations will be specially considered.

2. The temperature of the conductor is the combination of ambient temperature and temperature rise due to load.

3. Other insulating material siwllbe considered.

3.3.4. Fibrous braid : Textile braid is to be of cotton, hemp, asbestos, glass or to the equivalent fiber, and is to be of strength suitable for the size of the cable. It is to be effectively impregennated with a compound which is resistant to moisture and which is flame restarding.

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3.3.5 Cables fitted in the following locations:-
- Decks exposed to we-alher;
- Bathrooms;
- Cargo holds;
- Machinery spaces;

or any other location where water condensation or harmful vapour (e.g. oil vapour) may be present are to have an impervious sheath. In permanently wet situations, metallic sheaths are to be used for cables with hygroscopic insulation.

3.3.6 All cables are to be of flame-retard ant type or fire-resisling type, except that non flame-relardanl cables may be accepted for final circuits only where cables are installed in melallic conduils having internal diameler not exceeding 25 (mm] and provided'lhe conduils ate electrically and mechanically continuous.

3.4 Voltage rating

3.4.1 The raled voltage of any cable is to be not lower than the nominal voltage ot lhe circuit for which it is used.

3.4.2 The voltage drop from the- main switchboard bus bars to any point in the installation when lhe cables are carrying maximum current under normal conditions ot service is not to exceed 6 per cent of the nominal voltage.

3.5 Current rating

3.5.1 The highest continuous load carried by a cable is nol to exceed its current rating. The diversity factor of the individual loads and the duration of the maximum demand may be allowed for in estimating the maximum continuous load and is to be shown on the plans submitted for approval.

3.5.2 In assessing lhe current fating of lighting circuits, every lampholder is to be assessed at the maximum load likely to be connected to it, with a minimum of 60 W. unless the fitting is so connected as to take only a lamp rated at less than 60 w.

3.5.3 Castes supplying winches, cranes, windlasses and capstans are to be suitably rated for their duty, Unless the duly is such as to require a longer time rating, cables for winch or crane motors may be half hour rated on the basis of the half hour [kW] rating of (he motors.

Cables for windlass and capstan motors are to be not less than one hour rated on the basis of the one hour [kW] rating of the motor. In all cases the rating is to be subject to the vollage drop being within the specified limits.

3.5.4 The current ratings given in Tables 3,5.1 to 3.5.5 are based on the maximum operating conductor temperatures, given in Table 3.2.1. Alternatively current rating in accordance with an acceptable National or International standard may be applied. See 3.1.1.

Table 3.5.1. General purpose rubber and PVC insulation current rating (based on ambient temp. 45°C)

Nominal cross section	Single core	2 core	3 or 4 core
[mm²]	Amperes	Amperes	Amperes
1	8	7	6
1.5	12	10	8
2.5	17	14	12
4	22	19	15
6	29	25	20
10	40	34	28
16	24	46	38
25	71	60	50
35	87	174	61
50	105	89	74
70	135	115	95
95	165	140	116
120	190	162	133
150	220	187	154
185	250	213	175
240	290	247	203
300	335	285	235
	d.c a.c.	d.c a.c.	d.c a.c.
400	390 380	332 323	273 266
500	450 430	383 365	315 301
630	520 470	442 400	364 329

3.6 Correction factors for current rating.

3.6.1. Bunching of cables : Where more than six cables belonging to the same circuit are bunched together a correction factor of 0.85 is to be applied.

Table 3.5.2 : Heat resisting PVC insulation current rating (Based on ambient temp 45°C)						
Nominal cross section	Single Core		2 Core		3 or 4 Core	
[mm^2]	Amperes		Amperes		Amperes	
1	13		11		9	
1.5	17		14		12	
2.5	24		20		17	
4	32		27		22	
6	41		35		29	
10	57		48		40	
16	76		65		53	
25	100		85		70	
35	125		106		88	
50	150		128		105	
70	190		162		133	
95	230		196		161	
120	270		230		189	
150	310		264		215	
185	350		298		245	
240	415		353		291	
300	475		404		333	
	d.c.	a.c.	d.c.	a.c.	d.c.	a.c.
400	570	560	485	475	400	390
500	650	620	550	530	455	435
630	740	670	630	570	520	470

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Table 3.5.3 : Butyl insulation current rating (Based on ambient temp 45°C)						
Nominal cross section	Single Core		2 Core		3 or 4 Core	
[mm^2]	Amperes		Amperes		Amperes	
1	15		13		11	
1.5	19		16		13	
2.5	26		22		18	
4	35		30		25	
6	45		38		32	
10	63		54		44	
16	84		71		59	
25	110		94		77	
35	140		119		98	
50	165		140		116	
70	215		183		151	
95	260		221		182	
120	300		255		210	
150	340		289		238	
185	390		332		273	
240	460		391		322	
300	530		450		371	
	d.c.	a.c.	d.c.	a.c.	d.c.	a.c.
400	610	590	519	502	427	413
500	690	640	587	544	403	448
630	790	690	372	587	553	483

Table 3.5.4 : Ethylyene propylene rubber cross linked polyethylene insulation current rating (Based on ambient temp 45°C)						
Nominal cross section	Single Core		2 Core		3 or 4 Core	
[mm^2]	Amperes		Amperes		Amperes	
1	16		14		11	
1.5	20		17		14	
2.5	28		24		20	
4	38		32		27	
6	48		41		34	
10	67		57		47	
16	90		77		63	
25	120		102		84	
35	145		123		102	
50	180		153		126	
70	225		191		158	
95	275		234		193	
120	320		272		224	
150	365		310		256	
185	415		353		291	
240	490		417		343	
300	560		476		392	
	dc	ac	dc	ac	dc	ac
400	650	630	553	536	445	441
500	740	680	629	578	518	476
630	840	740	714	629	588	516

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Table 3.5.5 : Silicon rubber, mineral insulation current rating (Based on ambient temp 45°C)			
Nominal cross section	Single Core	2 Core	3 or 4 Core
[mm^2]	Amperes	Amperes	Amperes
1	20	17	14
1.5	24	20	17
2.5	32	27	22
4	42	36	29
6	55	47	39
10	75	64	53
16	100	85	70
25	135	115	95
35	165	140	116
50	200	175	140
70	255	217	179
95	310	264	217
120	360	306	252
150	410	349	287
185	470	400	329
240	570	485	400
300	660	560	460

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Table 3.6.1 : Correction factors for temperature							
Insulation	Correction factor for ambient temperature in °C						
	25	30	35	40	45	50	55
Rubber of PVC (general purpose)	1.53	1.41	1.29	1.15	1.00	0.82	0.58
PVC (heat – resistant quality)	1.29	1.22	1.15	1.08	1.00	0.91	0.82
Butyl Rubber	1.25	1.2	1.13	1.07	1.pp	0.93	0.85
Ethylyene propylene rubber cross-linked polyethylene	1.22	1.17	1.12	1.06	1.00	0.94	0.87
Mineral, silicons rubber	-	-	-	1.05	1.00	0.95	0.89

Notes :

1. For cables in refrigerated chambers and holds and for vessels restricted to service in non – tropical waters, correction factors for 35°C may be acceptable.

2. Correction factors for intermediate values of the ambient temperature can be ascertained by interpolation.

Table 3.6.2 : Correction factors for intermittent rating				
Correction Factor	Half – hour rating		One – hour rating	
	With metallic sheath [mm^2]	Without metallic sheath [mm^2]	With metallic sheath [mm^2]	Without metallic sheath [mm^2]
1.00	Upto 20	Upto 75	Upto 67	Upto 230
1.10	21-40	76-125	68-170	231-400
1.15	41-65	126-180	171-290	401-600
1.20	66-95	181-250	291-430	-
1.25	96-120	251-320	431-600	-
1.30	131-170	321-400	-	-
1.35	171-220	401-500	-	-
1.40	221-270	-	-	-

3.6.2 Ambient temperature : The current retaings in Table 3.5.1 to 3.5.5 are based on an ambient temperature of 45°C. For other values of ambient temperature the correction factors shown in Table 3.6.1 are to be applied.

3.6.3 Intermittent Service : Where the load is intermittent, the correction factors in Table 3.6.2 may be applied for half hour and one hour ratings. In no case is a shorter rating than one half hour rating to be used, whatever the degree of intermittency.

3.7 Testing

3.7.1 Tests in accordance with an acceptable National of International Standard are to be made at the manufacturer's works prior to dispatch.

3.8 Connections between entrained vessels

3.8.1 Cables are to be suitable for use in the connections between entrained vessels i.e. are to be flexible, robuse and of commensurate cross-section area.

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3.8.2 The connection is to include provisions for the continuity of oui-of-balance or earth-fault current return. The connecting device is to include provisions to ensure that this circuit is closed before, and opened after, the live circuits.

3.8.3 Terminal plugs and sockets, if used, are to be so arranged that any exposed pins cannot be energized.

3.8.4 Where hull-return systems are used, hull polarity is to be compatible.

3.9 Installation of cables

3.9.1 Cable runs are to be, as far as practicable, straight and accessible and as high as possible - above bilges.

3.9.2 Cables having insulating materials with different maximum-rated conductor temper atures are not to be bunched together, or, where this is not practicable, the cables are to be operated so thai no cable reaches temperature higher than that permitted for the lowest temperature-rated cable in the group:

3.9.3. Cables having a proleclive covering which may damage the covering of other cables are not to be bunched with those other cables, The minimum internal radius of bends of installed cables is to be generally in accordance with following :

4d	For cables without braiding. Armouring or other metal sheath and with an overall diameter not exceeding 25 [mm]
6d	For all other cables
(d = overall diameter of cable)	

3.9.4. Cables, aw to be effectively supported and secured in a manner that prevents damage to their coverings.

3.9.5. Supports and accessories are to be robust and are to be of corrosion-resistant material or suilably corrosion inhibited before ereciion.

3.5.6. The distance between supports, for horizontal as well as vertical runs of cables is to be chosen according to the type size of cable but generally in accordance with Table 3.9.1..

3.10 Mechanical protection of cables

3.10.1 Cables exposed to risk of mechanical damage are to be protected by metal channels of casing or enclosed in sleel conduit unless the protective covering (e.g. armour or sheath) is adequate to withstand the possible damage.

Table 3.9.1. : Distance between supports

External diameter of cable		Non armoured cables	Armoured cables
Exceeding	Not exceeding		
[mm]	[mm]	[mm]	[mm]
-	8	200	250
8	13	250	300
13	20	300	350
20	30	350	400

3.10.2 Cables in spaces where there is exceptional risk of mechanical damage (e.g. on weather decks, in cargo hold areas and inside the cargo holds) and also below the floor in engine room, are to be suitably protected, even if armoured, unless the sleel slruclure affords adequate protection.

3.10.3 Metal casings for mechanical protection of cables are to be efficiently protected against corrosion.

3.11 Earthing of metaj coverings

3.11.1 Metal covering's of cables are to be effectively earthed at both ends ol the cable, excepl in final sub-circuits, where earthing at the supply end only will be considered adequate. This does not necessarily apply to instrumentation cables where single point earthing may be desirable for technical reasons.

3.11.2 The electrical continuity of all metal coverings of cables throughout the length of the cable, particularly at joints and tappings, is to be ensured,

3.11.3 The lead sheath oflead-shealhed cables is not to be used as the sole means of earthing the non-current carrying parts of items of equipment.

3.12 Penetration of bulkheads and decks by cables

3.12.1 Penetration of watertight bulkheads or dects is to be carried out with either individual watertight glands or with packed watertight boxes carrying several cables. In either case, the watertight integrity and strength of the bulkheads and decks are to be maintained. Where cables with polyvinyl chloride insulation me being installed, particular care is to be taken

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to avoid damage to the sheathing during the Titling of waleriighl bulkhead glands.

3.12.2 Where cables pass through non-waterlighl bulkheads or structural steel, the holes are to be bushed, in order to protect the cables, with lead or other approved material which will prevent damage to the cables by abrasion. If the sleel is 6 [mm] thick, adequately rounded edges may be accepted as the equivalent of bushing.

3.12.3 Cables passing through decks are to be protected by deck lubes or duels.

3.12.4 Materials used for glands and bushings are to be such that thefe is no risk, of corrosion.

3.12.5 Where rectangular holes are cut in bulkheads or structural sleel [he corners are to be adequately rounded,

3.13 Installation of cables in pipes and conduits

3.13.1 Installation of cables in pipes and conduits is to be carried out in such a manner that there is no damage to Ihe cable covering.

3.13.2 Metal conduil systems are to be earthed and are to be mechanically and electrically continuous across joints. Individual short lengths of conduit need not be earthed.

3.13.3 The internal radius ol bend of pipes and conduit is to be not less Ihan thai laid down for cables, provided thai for pipes exceeding 64 [mm] diameler the internal radius of bend is nol less than twice Ihe diameter of the pipe.

3.13.4 The drawing-in (ratio-of the sum of the cross the cross-seclional areas of the cables, based on (heir external diameter, to the internal cross-
section area of the pipe) is not to exceed 0.4.

3.13.5 Expansion joints are to be provided where necessary.

3.13.6 Cable pipes and conduits are to be adequately and effectively protected against corrosion. Where necessary, openings are to be provided at the highest and lowest points to permit air circulation and to prevent accumulation of water.

3.13.7 Where cables are laid in trunks, the trunks are to be so constructed as not to afford passage for fire from one deck or compartment to another.

3.13.8 Non-metallic ducting or conduit is to be of flame-retardanl material. PVC conduil is not to be used in refrigerated spaces or on ope'n decks, unless specially approved.

3.14 Cables for alternating current

3.14.1. Generally, multi-core cables are to be used in A.C. installations. Where il is necessary to use single-core cables for allernaling current circuits rated in excess of 20 amperes the requirements of 3.14.2 to 3.14.8 are to be complied with.

3.14.1 Cables are to be either non-armoured or armoured with non- magnetic material.

3.14.3 If installed in pipe or conduit, cables belonging to Ihe same circuit are to be installed in Ihe same conduit, unless the conduit or pipe is of non-magnetic material.

3.14.4 Cable clips are to include cables of all phases of a circuit unless the clips are of non magnetic material.

3.14.5 When installing two three or four single-core cables forming respectively single-phase circuits, three-phase circuits or Ihree-phase 3nd neulral circuits, the cables are to be in contact wilh one another, as far as possible. In any case, the distance between the external covering of two adjacent cables is not to be greater Ihan one diameler.

3.14.6 In the case of circuits using two or more parallel connected cables per phase, all cables are to have the same length and cross sectional area.

3.14.7 Where single core cables of rating exceeding 50 amperes are used, magnetic material Is not to be placed between single-core cables of a group. If these cables pass through steel plates, all cables of the same circuit are to pass through the plale or gland so constructed that there is no magnetic material between the cables, and suitable clearance is provided between the cable core and magnetic material. This clearance, wherever practicable, is not to be less than 75 [mm] when the current exceeds 300 amperes. For cuirenls between 50 amperes abd 300 amperes the clearance may to proportionately reduced.

3.14.8. If single – core cables of current rating greater than 250 amperes are run along a steel bulkhead, wherever practicable the cables should be spaced away from ihe steel.

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3.15Cable ends

3.15.1 The ends of all conductors of cross-sectional area greater than 4 [mm^2] are to be lilted with soldering sockets, compression type sockets or mechanical clamps. Corrosive fluxes are not to be used.

3.15.2 Cables having hygroscopic insulation (e.g. mineral insulated) are to have their ends sealed against ingress of moisture.

3.15.3. Cables with a supplementary insulating belt-beneath the protective sheath are to have additional insulation at those points where the insulation of each core makes or may make contact with earthed metal.

3.16 Joints and branch circuits in cable systems

3.16.1 Cable runs aie normally not to include joints. However, if a joint is necessary it is to be carried so that all conductors are adequately secured, insulated and protected from atmospheric action, Terminals and busbars are to be of dimensions adequate for the cable rating.

Section 4
Switch boards

4.1 General

4.1.1 Switchboards, section boards and distribution boards are to be constructed of or enclosed with non-flammable, non-hydroscopic material and are to be so installed that live parts are sufficiently guarded and adequate space is provided for maintenance. Also they are to be prolecled where necessary in way of pipes etc.

4.1.2 All measuring instruments and all apparatus controlling circuits are to be clearly and indelibly labeled for identification purposes. An indelible label is to be permanently secured adjacent to every fuse and every circuit breaker and marked with particulars of the full load current of lhe generator, motor or cable which the fuse or circuit breaker protects. Where inverse lime limit and/or reverse current devices are provided in connection with a circuit breaker, the appropriate sellings of these devices are to be staled on the label. Name plales are to be of tlame rclaidanl material.

4.2 Instruments

4.2.1 Sufficient instrumentation is to be provided for measuring voltage, current, frequency and. for ailernaling current generators above 50 [kW].

4.2.2. Where alternating current generators are requires to operate in parallel synchronizing arrangement are to be fitted.

4.3 Instrument transformers

4.3.1 The secondary windings of instrument transformers are to be earthed.

4.3 Switchgear

4.4.1 Circuit breakers and switches are to be of the air break type and are to be consirucled in accordance with an acceplabte National or International Standard.

4.4.2 Report of tests to establish the capacity of circuit-breakers are to be submitted for consideration when requited.

4.4.3 Overcurrent releases are to be calibrated in amperes and sellings marked on the circuit-breaker.

4.4 Fuses

4.5.1 Fuses are to comply with an acceptable National or International Standard.

4.5.2 Fuse links and fuse bases are to be marked with particulars of rated current and rated voltage. Each fuse position is to be permanently and indelibly labeled with the current carrying capacity of the circuit prolecled by it and v/ilh the appropriate approved size of fuse or replaceable element.

4.6 Testing

4.6.1. Before installation, switchboards complete of in section swith all components are to pass the following tests at the manufacturer's works and a certificate furnished. A high vollage lest is to be carried oul in all switching and control apparatus for systems greater than 60V with a test voltage of 1000V plus twice the rated voltage with a minimum of 2000V at any frequency between 25 and 100 Hz for one minute applied between (a) all current-carrying

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parts connected together and earth and (b) between currenl carrying parts of opposite polarity or phases,

4.6.2 For systems ol 60V or less the test shall be at 500V for one minute.

Instruments and ancillary apparatus, may be disconnected during the high voltage lest. Immediately after the high voltage test, the insulation resistance between (a) all current-carrying parts connected together and earth and (b) between current carrying parts of opposite polarity or phase, shall not be less than 1 Megohm when tested with a direct current voltage of at leasl 500V.

4.6.5. Functional tests. The correct functions of the installation components in line with the connections intended to be made have to be checked as lar as possible.

Section 5
Control Gear

5.1 General

5.1.1 Control gear is to comply wilh an acceptable National or International Standard, amended where necessary for ambient temperature.

5.1.2 Control gear, including isolating and reversing switches, is to be so arranged that shunl field circuits are not disconnected without adequate discharging palh being provided.

5.2 Testing

5.2.1 Control gear and resistors are to be lesled by the manufacturers with a high voltage applied beKveen the earthed frame and all live parts and a certificate furnished by them to this effect, For operaling voltages above 55 V. the tesl votlage is to be 1000 V plus twice lhe rated voltage wilh a minimum of 2000 V. The voltage is to be alternating al any frequency between 25 and 100 Hz and is to be maintained for one minute without failure.

5.2.2 Control gear and resistors opera ling at 55 V or below are to be lesled to 500 V for one minute.

5.2.3 Immediately afler the high vollage lest, lhe insulation resistance between (a) all current-carrying parts connected togelher and earth, and (b) between current-carrying parts of opposite polarity or phase, is not to be less than 1 megaohm when lesled wilh a dilecl current voltage of al least 500 V.

5.2.4 Instruments and ancillary apparatus may be disconnected during the high voltage test

5.2 5 Functional Test: The correct functions of the installation componenls in line with the connections intended to be made, have to be checked as far as possible.

Section 6
Rotation Machines Construction and Testing

6.1 General

6.1.1 Rotating machines are to be constructed in accordance with an acceptable national or international Standard, due regard being given to the ambient conditions stated in 1.5.

6.2 Rating

6.2.1 Vessel's service generators including their exciters, and continuously rated motors are to be suitable for continuous duly at their full rated output at maximum cooling air or water. temperature for an unlimited period, without lhe limils of temperature rise in 6.3 being exceeded. Other generators and motors are to be rated in accodance with the duty which they are to perform, and when tested under rated load conditions the temperature rise is not to exceed the values in 6.3 Alternately limils of temperature rise in accordance wilh an acceptable National or International Standard may be applied.

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6.3 Temperature rise

6.3.1 The limits of lemperalure rise specified in Table 6.3.1 are based on a cooling ait temperature of 45°C and a cooling water temperature of 30°C.

6.3.2. If the temperature of the cooling medium is known to exceed the value given in 6.3.1. Ihe permissible temperature rise is to be reduced by an amount equal to the excess temperature of the cooling medium.

6.3.3 H the temperature of the cooling medium is Known to be permanently less than Ihe value given in 6.3.1. the permissible lemperalure rise may be increased by an amount equal to the difference between the declared temperature and that given in 6.3.1 uptoa maximum of 15°C.

Table 6.3.1 : Limits of temperature rise in °C

Item	Part of machines	Methods of measurement of temperature	Temperature rise in air – cooled machines :C insulation Class		
1(a)	a.c. windings		A	E	B
		R	50	65	70
(b)	Field windings of a.c. and d.c. machines having d.c. expiation other than those in items 2 and 3	T	40	55	60
(c)	Windings of armatures having commutators	R	50	65	70
		T	40	65	70
2	Field windings of turbine-type machiones having d.c. excitation	R	-	-	80
3(a)	Low-resistance field windings of more than one layer and compensating windings	T.R	50	65	70
4	Permanently short circuited windings uninsulated	T	50	65	70
5.	Permanently short circuited windings uninsulated	T	The temperature rise of these parts shall in no case reach such a value that there is a risk of injury to any insulating or other material on adjacent parts.		
6	Iron core and other parts not in contact with windings	-	The temperature rise of these parts shall in no case reach such a value that there is a risk of injury to any insulating or other material on adjacent parts.		
7.	Iron core and toher parts in contact with windings	T	50	65	70
8.	Commulators and slip rings open or enclosed	T	50	60	70

Notes :

1. T = Thermometer method
 R = Resistance method
2. When class R or Class H insulation is employed the permitted temperature rises are respectively 20°C and 40°C higher than the values given for Class B insulation.
3. Classes of insulation are to be in accordance with (EC Publication 85 (1957) Recommendations for the Classification or Material for the Insulation of Electrical Machinery and Apparatus in relation to their Thermal Stability in Service.

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6.4 Direct current service generators

6.4.1 Shunt wound direct current generators are to be provided with automatic voltage regulators,

6.4.2 Direct current generators used for charging batteries without series-regulating resistors are to be either

a) Shunt wound, or

b) Compound wound with switches arranged so that the series winding can be switched out of service.

6.4.3 If terminal voltage is required to be manually adjusted to ensure satisfactory operation ol generators, then, facilities are to be provided at the switchboard or at an appropriate and convenient control position to enable such adjustments to be made.

6.4.4 For each direcl current generator, whilst being driven by ils prime mover, at any lemperalute within the v/oiking range, the means provided is to be capable of adjusting the voltage at any load between no load and full load to within.

a) 1.0 per cent of rated voltage for generators of rating less than 100 [kW].

b) 0.5 per cent of rated voltage for generators of rating exceeding 100 [kW).

6.4.5 The inherent regulation of service generators is to be such that the following condilions are fulfilled.

a) For shunt or stabilized shunt wound generators when the voltage has been set at full load, the steady voltage at no load is not lo exceed 115 per cent of the full load value, and the voltage obtained at any intermediate value of toad is not to exceed the no-load value.

b) For compound wound generators with the generator at full toad operating temperature and starting al 20 per cent load with voltage within 1 per cent of rated voltage, then at full load the vollage is to be within 2.5 per cent of rated voltaged. The average of the ascending and descending load / voltage curves between 20 percent load and full load is not to vary more than 4 percent from rated voltage.

6.4.6 Generators are to be capable of delivering continuously the full load current and normal raled vollage at the terminals when running at full load engine speed at all ambient temperatures up to the specified maximum.

6.4.7 Generators required to run in parallel are to be stable from no load up to the total combined load of the group, and load sharing is to be satisfactory,

6.4.8 The series winding of each two-wire generator is to be connected to the negative terminal.

6.4.9 Equalizer connections are to have a cross-sectional area appropriate to the system but in no case less than 50 per cent'of that of the negalrve connection from the generator to the switchboard.

6.5 Alternating current service generators

6.5.1 Each alternating current service generator unless of the self regulating type, is to be provided with automatic means of voltage regulation.

6.5.2 The vollage regulation of any alternating current generator with its tegulaling equipment is to be such that at all loads from zero to full load the voltage at raled power factor is maintained under steady conditions within 2.5 per cent of fated voltage.

6.5.3 Alternating current generators required to run in parallel are to be stable lrom 20 per cent full load [kW] upto lhe total combined full load [kW] of the group, and load sharing is to be such that lhe load on any generator does not normally differ from 'ls proportionate share of lhe total load by more lhan 15 per cent of the rated output [kWJ of the largest machine or 25 per cent of the rated output [kW] of the individual machine, whichever is less.

6.5.4 When generators are operated in parallel, the KVA loads of the individual generating sets are not to differ from their proportionate share of the total KVA load by more than 5 per cent of the rated KVA output of the largest machine when operating at 0.8 power factor.

6.6 Inspection and testing

6.6.1. On machines for assential services tests are to be carried out in accordance with the relevant standard and a certificate furnished by the manufacturers.

6.6.2 Generators and motors of 100 [kW] or over intended for essential services are to be inspected by the Surveyors during manufacture and testing.

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Section 7
Transofmer – construction and testing

7.1 General

7.1.1 Transformers are to be in accordance with an acceptable National or International Standard, due regard being given to the ambient conditions staled in 1.5.

7.1.2 Transformers are to be of the dry, natural air cooled type. Proposals for the use of liquid cooled transformers will be subject to special consideration.

7.2 Installation

7.2.1 Transformers are to be placed in easily accessible well ventilated spaces free from any gaseous or acid fumes. They are to be clear of nonprotected ignitable materials, and so arranged as to be protected against shocks and any damage resulling from water, oil, liquid fuel, steam etc

7.3. Construction

7.3.1 Transformers are to be double wound except those for motor starling.

7.3.2. Each transformer is to be provided within a nameplate of corrosion-resistant metal giving information on make, type serial number, insulation class and any other technical data necessary lor the application of the Iransformer.

7.4 Regulation

7.4.1 The inherent legulaiion al 0.8 power factor is not to exceed 5 per cent.

7.4.2 Regulation of the complete system is to comply with 3.4.2.

7.5 Short circuit

7.5.1 All transformers are to be constructed to withstand, without damage, the thermal and mechanical effects of a short-circuit at the terminals of any winding for 2 seconds with rated primary voltage and frequency without damage.

7.6 Tests

7.6.1 Transformers lor essential services are to be tested by the manufacturer in accordance wilh the relevant standatd and lest certificates supplied.

Section 8
Miscellaneous Equipment

8.1 Accumulator batteries

8.1.1 Construction

8.1.1.1 The cells ol all batteries are to be so constructed and secured asto prevent spilling of the electrolyte due to the molion of the vessel and to prevent emission of acid or alkaline spray.

8 1.1 2 All batteries are to be provided with labels ol flange 'eiardani material grvmg information on the application for which the bolScry is inieriued. voltage and capacity.

8.1.2 Location

8.1.2.1 Alkaline batteries and lead acid batteries of Ihe vented type are nol to be installed in Ihe same compartment.

8.1.2.2 Large batteries are to be installed in a space assigned to them only. A box on deck would meet this requirement if adequately ventilated and provided wilh means to prevenl ingiess of water.

8.1.2.3 Engine starting batteries are to be located as close as practicable to the engine (s) served. If such batteries cannot be accommodated in the battery compartment, they are to be installed so that adequate ventilation is ensured.

8.1.3 Installation

8.1.3.1 Batteries should be so arranged that each cell or crate of cells is accessible from the top and at leasl one side.

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8.1.3.2 Cells or crates are to be carried on non-absorbenl insulating supports. Similar insulators are tobe fitted to prevent any movement of cells arising from the motion of the vessel. Adequate space for circulation of air is to be ensured.

8.1.3.3 Where acid is used as the electrolyte a tray of acid resisting material is to be provided below the cells unless the deck below is similarly protecled.

8.1.3.4 The interiois of all compartments including the shelves, are to be painted with corrosion resistant paint.

8.1.3.5 A permanent notice is to be fitted to all compartments prohibiting naked lights and smoking in lhe compartment.

8.1.3.6 Switches, fuses and other electrical equipment liable to cause an ate are not to be titled in battery compartments.

8.1.4 Ventilation

8.1.4.1 Battery compartments, lockers and boxes are to be adequately ventilated by an independent ventilating system to avoid accumulation of flammable gases. Particular attention should be given to the tact that these gases are lighter than air and lend to accumulate at the top of the spaces.

8.1.4.2 Natural ventilation may be employed if duels can be run directly from the top of the compartment to the open air with no part of the duct more than 45 degrees from the vertical. If naiural venlilalion is impracticable, mechanical ventilation is of be installed, Interior surfaces of duels and fans are to be painted with corrosion-resistant paint, Fan motors are not to be located in the air stream.

8.1.4.3 Necessary precautions are to be taken to prevent sparking due to possible contact by the ventilation fan blades with fixed parts.

8.1.4.4 All openings through the battery compartment bulkheads or decks, other than ventilation openings, are to be effectively sealed to reduce the possibility of escape of gas from the battery compartment into the vessel.

8.2 Luminaries 8.2.1 General

8.2.1.1 Lighting fittings installed in engine rooms or similar spaces where they are exposed to the risk of mechanical damage are to be provided with suitable grilled mechanical guards to protect their lamps and glass globes against such damage.

8.2.1.2 Precautions ate to be taken so that a lamp for one voltage cannot be inserted in a lampholdei foi another voliage.

8.2.1.3 Incandescent lamps are accordance with the following :-

B22 upto 250 V and 200 W
E27 upto 250 V and 200 W
E40 upto 210 V and 3000 W

8.2.1.4 Lampholders are to be constructed of flame-retarding and non- hygroscopic material. All metal parts are to be of robust construction. Goliath lampholders (E40) are to be provided with means for locking the lamp in the holder. The temperature of cable connections is not to exceed lhe maximum conductor temperature permitted for the cable as given in Table 3.2.1.

8.2.1.5. The ratings of lubulai lluoresceni lamps are not to exceed 250 V and SO W.

8.3 Accessories - Construction and testing

0.3.1 Enclosures

8.3.1.1 Enclosures are to be of metal or of flame-relardanl insulating materials.

8.3.2 Inspection and draw boxes

8.3.2.1 If metal conduit systems are used, inspection and draw boxes are to be of metal and are to be in rigid elecirical and mechanical connection with the conduits.

8.3.3 Socket outlets and plugs

8.3.3.1 Socket outlets and plugs are to be so constructed that they cannot be readily short-circuited whether the plug is in or out. and so that a pin of the plug cannot be made to earth either pole of the socket outlet.

8.3.3.2 All socket outlets of current rating 16 amperes or more are to be provided with switch.

8.3.3.3. Where it is necessary to earth the non current-carrying parts of portable or transportable equipment, an effective means of earthing is to be provided at the socket outlet.

8.3.3.4 In all wet situations socket outlets and plugs are to be effectively shielded against rain

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and spray and are to be provided wilh means for mainlaining Ihis quality after removal of the plug.

8.4 Heating and cooking equipment

8.4.1 General

8.4.1.1 Heaters are to be so constructed. Installed and protected lhat clothing, bedding and other inflammable material cannot come in contact wilh them in such a manner as to cause risk of fire. There is to be no excessive healing of adjacent bulkheads or decks.

8.5 Lightning conductors

8.5.1 Lightning conductors are to be fitted to each mast of all wood, composite and steel vessels having wooden masls or topmasts. They need nol be Tilted to steel vessels having steel masts, unless the masl is partly or completely insulated from the vessel's hull.

8.5.2. Lightning conductors are to be run as straight as possible, and sharp bends in the conductors are to be avoided. All clamps used are to be of brass or copper, preferably of the serrated contact type, and efficiently locked. Soldered connections are not acceptable.

8.5.3 The resistance of the lightning conductors, measured between the mast head and the position on the earth plate or hull to which the lightning conductor is earthed, is not to exceed 0.02 ohms.

8.5.4 The lightning conductors are to be composed of continuous copper tape and / or rope, having a section nol less lhan 100 [mm] and are to be riveted wilh copper rivets or fastened with copper clamps to an appropriate copper spike of not less than 13 [mm] in diameter and projecting at last 150 [mm] above the top of the mast. The lower end of the lighlning conductor is to be securely clamped to a copper plale having an area of at least 0.2 [m^3], fixed to the vessel's hull well below the light load waterline in such a manner that it is immersed under all conditions of heel. In steel vessels fitted with wooden masts, the lower end of the lighlning conductor is to be securely clamped to the nearest metal forming part of Hie hull.

Section 9
Trials

9.1 General

9.1.1 Before a new installation, or any alteration or addition to an existing installation, is put into service the lests and trials specified in this Section are to be carried out. These tests and trials are intended to demonstrate the general condition of the installation at the time of complelion. They are in addilion to any acceptance tests which may have been carried out at the manufacturer's works.

9.2 Insulation resistance measurement

9.2.1 Insulation resistance is to be measured using a self-contained instrument such as a direct reading ohm-meter of the generator type applying a voltage of at least 500 V. Where a circural separates capacitors of move than 2.5 Total capacitance a consultant violage type readings.

9.2.2 Power and light circuits : The insulation resistance between all insulated poles and earth and, where practicable, between poles, is to be at least 1 megaohm. The installation may be subdivided and appliances maybe disconneded It initial tests produce results less than this figure.

9.2 3 Low voliage circuits : Circuits operating at less than 55 V are to have an insulation resistance of at least 0.33 megaohm.

9.2.4 Switchboards, Section boards and distribution boards : The insulation resistance is to be at teast 1 megaohm when measured between each busbar and earth and between busbars. This test may be made wilh all circuit-breakers and switches open, all fuse links for pilot lamps, earth fault-indicating lamps. voltmeters, etc., removed and voltage coils temporarily disconnected, where otherwise damage may result.

9.2.5 Generators and motors the insulation resistance of generators and motors in normal working condition and with all parts in place, is to be measured and recorded. The test should be carried out with the machine hot if possible. The insulation resistance of generator and motor cables, field windings and control gear is to be at least 1 megaohm.

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9.3 Earth continuity

9.3.1 Tests are to be made to verify that all earth continuity conductors are effective and that the bonding and earthing of melallic conduit and/or sheathing of cables is effective.

9.4 Performance

9.4.1 It is to be established (hat the provisions of Ihe Rules have been complied with respect to the criteria mentioned in Itiis sub-section.

9.4.2. Temperatures of joints, connections, circuit-breakers and fuses.

9.4.3. The operalion of engine governors, synchronising devices, overspeed trips, reverse-current, reverse-power, over-current and under-voltage trips and other safely devices.

9.4.4. Satisfactory commulation excitation and performance of each generator throughout a run at full rated load.

9.4.5 Voltage regulation of every generator when full raled load is suddenly lhrown off.

9.4.6 For alternating current and direct current generators, salisfactory parallel operation and [kW] load sharing of all generators capable of being operated in parallel at all loads up to normal working load. For alternating current generators satisfactory parallel operation and KVA load sharing of all generalors capable of being operated in parallel at all loads up to normal working load.

9.4.7 All essential motors and other important equipment are to be operated under service conditions, though not necessarily at full load of simultaneously, tor a sufficient length of time to demonstrate that they are satisfactory.

9.5 Voltage drop

9.5.1. Vollage drop is to be measured, where necessary, to verify lhal lhis is not excessive

End of Chapter

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Annexture – VI
(See rule – 47)

LIFE SAVING APPLIANCE TO BE CARRIED ON BOARD INLAND VESSELS

Regulation 1

1. Unless expressly provided other wise the rules will apply to all decked vessels of over 15 m in length and to passenger vessels carrying more than 25 passengers, irrespective of length.

2. Life saving appliances and arrangements required by these rules are to be duly approved to meet the requirements specified in International life saving appliance code, as far as practicable.

3. For the purpose of these rules, the inland vessels are classified as follows :

Class I	:	Passenger vessels between 15 m and 25 m in length.
Class II	:	Passenger Vessel over 25 m in length and under 45 m. in length.
Class III	:	Passenger Vessel over 45m in length.
Class IV	:	Cargo Vessels, manned barges or potoons.

Regulation 2
General Requirements

1. Passenger Vessels :

Class	Length	Rescue Boat	Life Rafts	Buoyant Apparatus	Life Buoys
I	15 – 25 m	-	60%	40% Capacity	4
II	25 – 45 m	One	60%	40 % Capacity	6
III	> 45 m.	One	100%	-	8

2. Cargo vessels, manned barges or pontoons :

Class	Length	Rescus Boat	Life Rafts / Buoyant Apparatus	Life Buoys
IV	15 – 25 m	-	100%	2
IV	25 – 45 m	-	100%	4
IV	> 45 m.	-	100%	6

Note : For the purpose of these Rules, one life buoys can be assumed as providing buoyancy for 2 persons.

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Regulation 3
Manning and survival procedures

1. All persons manning inland vessels and barges should be trained in launching and operating the survival crafts.
2. Illustrations and instructions relating to the use of life-saving appliances in appropriate languages should be displayed at appropriate places.
3. Posters or signs should be provided on or in the vicinity of survival craft and their launching controls.
4. On-board training in the use of life-saving appliances, including survival craft equipment, should be provided to all crew members.

Regulation 4
Stowage, launching and recovery of survival crafts

1. Survival craft should be stowed:

 1.1 so that neither the survival craft nor its stowage arrangements will interfere with the operation of any other survival craft or rescue boat;

 1.2 as near the water surface as is safe and practicable but not less than 2 m above the waterline with the ship in the fully loaded condition under unfavourable condition of trim and list;

 1.3 in a state of continuous readiness so that two crew members can carry out preparations for embarkation and launching in less than 5 minutes;

 1.4 liferafts intended for throw-overboard launching should be so stowed as to be readily transferable for launching on either side of the vessel.

2. Where the liferafts are not provided with launching appliances they should be stowed with its painter permanently attached to the vessel with a float- free arrangement complying with the recognized standards.

3. Effective means shall be provided for lighting the life saving appliances and their launching devices.

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Regulation – 5

Marking of survival craft

All survival craft should be marked in block capitals of the Roman alphabet with the:

1. Name and place of registry of the vessel;
2. Name of approving authority; and
3. Number of persons it is permitted to accommodate.

Regulation 6

Operational readiness, maintenance and inspections

1. Operational readiness at all times all life-saving appliances should be in working order and ready for immediate use.

2. Maintenance Instructions for on-board maintenance of life-saving appliances should be easily understood and illustrated where possible.

3. Inspection
The following tests and inspeaions should be carried out regularly and a log is to be maintained:
 - All survival craft/ liferaft, rescue boats and launching appliances should be visually inspected to ensure that they are ready for use;
 - the general emergency alarm sy. tem should be tested

4. Servicing of inflatable liferafts, infl. rescue boats and hydrostatic release units:

Every inflatable liferaft and inflated rescue its should be serviced at regular intervals at an approved servicing station.

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ANNEXTURE - VII

(see rules 43 and 46)

Rules for Vessels carrying dangerous goods

(inclusive of Materials Hazardous when carried in Bulk)

1.0 General

1.1. These Rules have been prepared to ensure safety of the environment in which vessels carrying cargoes in bulk are engaged. The rules are in line with BC Code as can be applicable to inland water.

1.2 The primary aim of the rule is to

- Highlight the dangers associated in carrying cargoes in bulk
- Highlight the dangers associated with carriage of dangerous cargoes.
- Give guidance during shipment of these cargoes.

1.3 Hazards : -

The various hazards associated with shipment of these materials is.

- Structural damage due to improper distribution of cargo
- Reduction instability
- Shift in Cargo
- Liquification cargo under stimulus of vibration motions of vessels.
- Chemical reactfons.

2.0 Application for Permission

2.1 An application is to be forwarded to the administration for permission of carriage of a particular cargo together with complete details. [UN No. Shipping name, nature of risks envisaged etc.O).

3.0 Definitions

Angle of repose	Is the maximum slope angle of non-cohesive (i.e. free-flowing) granular material. It is the angle between a horizontal plane and the cone slope of such material.
Cargoes which may liquefy	Are materials which contain at least some fine particulars and some moisture, usually water, although they need not be visibly wet in appearance. They may liquefy if shipped with moisture content in excess of the transportable moisture limit.
Concentrates	Are materials obtained form a natural ore by a process of purification by physical of chemical separation and removal of unwanted constituents.

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Cargo space	Any space in the vessel appropriated for the carriage of cargo.
Flow moisture point	is the percentage moisture content (wet mass basis) at which a flow state develops under the prescribed method of test in a representative sample of the material,
Flow state	is a slate that occurs when a mass of granular material is saturated with liquid to an extent that under the influence of prevailing external forces such as vibration, impactfon or vessel's motion, it loses its internal shear strength and behaves as a liquid.
Incomepatible materials	are those materials that may react dangerously when mixed. They are subject to the segregation requirements and the individual entries in Enclosure 2.
Moisture content	is that portion of a representative sample consisting of water, ice or other liquid expressed as a percentage of the total wet mass of that sample
Moisture migration	is the movement of moisture contained in materials by settling and consolidation of the material due to vibration and vessel's motion. Water is progressively displaced which may result in some portions or all of the materials developing a flow rate.
Representative test sample	is a sample of sufficient quantity for the purpose of testing physical and chemical properties of the consignment to meet specified requirements. It should be collected by means of an appropriate systematic
Shipper	for the purposes of this Code the term shipper means any person by whom or in whose name or on whose behalf a contract of carriage of goods by inland waterway has been concluded with a carrier, or any person by whom or in whose name or on whose behalf the goods are actually delivered to the carrier in relation to the contract of carriage by inland waterway.
Solid bulk cargo	is any material, other than liquid or gas, consisting of a combination of particles, granules or any larger pieces of material, generally uniform in composition, which is loaded directly into the cargo spaces of a vessel without any intermediate form of containment.
Stowage factor	is the figure which expresses the number of cubic metres which one tonne of material will occupy.
Transportable moisture limit	of a cargo which may liquefy, represents the maximum moisture content of the material wnich is considered safe for carriage in vessels.

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Timming	for the purposes of this Code trimming means any leveling of the material within a cargo space, either partial or total, by means of loading spouts or chutes, portable machinery, equipment or manual labour.
IMDG Code	International Maritime Dangerous goods Code.
BC Code	means International "Code of Safe practice for solid bulk cargoes-
MFAG	means Medical First Aid Guide for use in accidents involving dangerous goods.
EMS	Group emergency Schedule is a part of Emergency Procedures for vessels carrying Dangerous goods.

4.0 Safety of Personnel, Vessels and Environment: -

4.1 Prior to loading and unloading the master must be aware of: -

a) Risk involved due to shifting of cargoes, chemical hazards etc.
b) National Regulations
c) Facilities at loading unloading port.
d) First aid guidelines [MFAG]
e) Ventilation requirements for cargo spaces. When cargo carried causes depletion of oxygen, or emit toxic gases etc.
f) Test certificate stating the relevant details of angle of repose, stowage factor, toxicity, etc.

4.2 Documents to be carried onboard :

The following documents (as applicable) duly approved by the administration are to be placed on board at suitable location and should be available for ready reference in case of an emergency.

- Medical Fist Aid (MFAG)
- Group emergency procedures (EmS)
- Trim & Stability Booklet
- Grain Stability Booklet
- Loading manual.
- Cargo securing manual
- Test certificate stating the relevant details of angle of repose, stowage factor, toxicity, etc.
- Logbook is to be maintained indicating the various precautions taken before and during loading and during and unloading after of the cargoes.

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Stowage plan identifying the various classes and showing the location dangerous goods is to be provided. In case of carriage of limited quantity cargoes, the same is to be suitably indicated on the plan.

5.0 Classification of Solid Bulk Materials possessing Safety hazards : -

5.1.1 Solid materials transmitted in bulk which present a hazard during transport because of their chemical nature of properties is listed in Enclosure 2. Some of these materials are classified as Dangerous goods in International Maritime Dangerous Goods Code, others are materials which are hazardous when carried in Bulk [MHB].

5.1.2 When materials not listed are carried which fall within the classification of these Rules, the vessel concerned should carry Certificate of approval.

5.1.3 The list of materials which may liquefy when they come in contact with moisture and may cause a reduction in the stability due to free surface effect is enclosed as Enclosure 1.

5.1.4 The list of materials which are neither liable to liquefy (Enclosure - 1) nor possess chemical hazards (Enclosure 2) is enclosed as Enclosure 3. 5.2 Classes of hazard

5.2. Classes of hazard

5.2.1 The classification of materials possessing chemical hazards and intended to be shipped in bulk under the requirements of this Code should be in accordance with 5.2.2 and 5.2.3.

5.2.2 **Classification**

For the purpose of this Rules it has been found more convenient to designate these classes in accordance with the IMDG Code and to define in greater detail the materials which would fall within each class. Additionally, "materials hazardous only in bulk (MHB) are defined in this section.

5.2.2.1 **Class 4.1: Flammable solids**

These materials possess the properties of being easily ignited by external sources such as sparks and flames and of being readily combustible or of being liable to cause or contribute to fire through friction.

5.2.2.2 **Class 4.2: Substances liable to spontaneous combustion**
These materials possess the common property of being liable to heat spontaneously and to ignite.

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5.2.2.3 Class 4.3: Substances which, in contact with water, emit flammable gases.
These materials possess the common property, when in contact with water, of evolving flammable gases. In some cases these gases are liable to spontaneous ignition.

5.2.2.4 Class 5.1: Oxidizing substances (agents)
These materials although in themselves not necessarily combustible may, either by yielding oxygen or by similar processes, increase the risk and intensity of fire in other materials with which they come into contact.

5.2.2.5 Class 6.1: Toxic substances
These materials are liable either to cause death or serious injury or to harm human health if swallowed or inhaled, or by skin contact.

5.2.2.6 Class 6.2: Infectious substances
These materials contain viable micro-organisms or their toxins which are known or suspected to cause disease in animals or humans.

5.2.2.7 Class 7: Radioactive materials
To be specially considered.

5.2.2.8 Class 8: Corrosives
These materials possess in their original state the common property of being able more or less severely to damage living tissue.

5.2.2.9 Class 9: Miscellaneous dangerous substances and articles These materials present a hazard not covered by other classes.

5.2.3 Materials hazardous only in bulk (MHB)
These materials, when carried in bulk, present sufficient hazards to require specific precautions. For example, materials which are liable to reduce the oxygen content in a cargo space and those materials liable to self-heating or which become hazardous when wet, are regarded as belonging to this group.

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6.0 Stowage and segregation requirements

6.1 General requirements

6.1.1 The potential hazards of the materials listed in Enclosure 1 and falling within the classification of 5.2.2 and 5.2.3 entail the need for segregation of incompatible materials.

6.1.1.2 2 In addition to general segregation as between whole classes of materials, there may be a need to segregate a particular material from others which would contribute to its hazard. In the case of segregation from combustible materials, this should be understood not to include packaging material, ceiling or dunnage; the latter should in these circumstances be kept to a minimum.

6.1.3 For the purpose of segregating incompatible materials, the words "hold" and "compartment" are deemed to mean a cargo space enclosed by steel bulkheads or shell plating, and by steel decks. The boundaries of such a space should be resistant to fire and liquid.

6.1.4 When two or more different incompatible (other than Radioactive materials) materials are to be transported in bulk, no general segregation between them is required,

6.1.5 Where different grades of a material are transported in bulk in the same cargo space, the most stringent segregation provisions applicable to any of the different grades should apply to all of them.

6.1.6 When materials in bulk and dangerous goods in packaged form are to be transported, no general segregation between them is required. Except that when MHB and materials belonging to class 6.2, they are to be separated by a complete compartment or hold (i.e. either a vertical or a horizontal separation, if the decks are not resistant to fire and liquid, then only a longitudinal separation by an intervening complete compartment is acceptable)

6.1.7 Incompatible materials should not be handled simultaneously. In particular, contamination of foodstuffs should be avoided.

Upon completion of loading one such material, the hatch covers of every cargo space containing it should be closed and the decks cleaned of residue before loading of other materials is commenced. When discharging, the same procedures should be followed.

6.1.8 To avoid contamination, a material which is indicated as toxic should be stowed "separated from" (i.e., indifferent spaces) all foodstuffs.

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6.1.9 Materials which may evolve toxic gases in sufficient quantities to affect health should not be stowed in those spaces from where such gases may penetrate into living quarters, work areas, or ventilation systems.

6.1.10 Materials which present corrosive hazards of such intensity as to affect either human tissue or the vessel's structure should only be loaded after adequate precautions and protecting measures have been taken.

6.1.11 After discharge of a material for which toxicity is indicated, spaces used for its transport should be inspected for contamination. A space, which has been contaminated, should be properly cleaned and examined before being used for other cargoes, especially foodstuffs.

6.1.12 After discharge of materials, a close inspection should be made for any residue which should be removed before the vessel is presented for other cargo; such an inspection is particularly important when materials having corrosive properties have been transported.

6.2 Special requirements

6.2.1 Materials of classes 4.1,4.2 and 4.3

6.2.1.1 Materials of these classes should be kept as cool and dry as reasonably practicable and should be stowed clear of all sources of heat or ignition.

6.2.1.2 Electrical fittings and cables should be in good condition and properly, safeguarded against short circuits and sparking. Where a bulkhead is required to be suitable for segregation purposes, cable and conduit penetrations of the decks and bulkheads should be sealed against the passage of gas and vapour.

6.2.1.3 Materials liable to give off vapours or gases which can form an explosive mixture with air should be stowed in a mechanically ventilated space.

6.2.1.4 Prohibition of smoking in dangerous areas should be enforced, and clearly legible "NO SMOKING" signs should be displayed.

6.2.2 Materials of class 5.1

6.2.2.1. Materials of this class should be kept as cool and dry as reasonably practicable and should be stowed clear of all sources of heat or ignition. They should also be stowed "separated from" other combustible materials.

6.2.2.2 Before loading materials of this class, particular attention should be paid to the cleaning of the cargo spaces into which they will be loaded. As far as reasonably practicable, non-combustible securing and protecting materials and only a minimum of dry wooden dunnage should be used.

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6.2.2.3 Precautions should be taken to avoid the penetration of oxidizing materials into other cargo spaces, bilges, etc.

6.2.3 Materials of class 7

To be specially considered.

6.2.4 Materials of class 8 or materials having similar properties

6.2.4.1 These materials should be kept as dry as reasonably practicable.

6.2.4.2 Before loading these materials, attention should be paid to the cleaning of the cargo spaces into which they will be loaded and in particular whether these spaces are dry.

6.2.4.3 Penetration of these materials into other cargo spaces, bilges, wells and between the ceiling boards should be prevented.

6.2.4.4 Particular attention should be paid to the cleaning of the cargo spaces after unloading, as residues of these cargoes may be highly corrosive to the vessel's structure. Hosing down of the cargo spaces followed by careful drying is preferred.

6.3.3 Segregation between bulk materials possessing chemical hazards and dangerous goods in packaged form

Segregation between bulk materials and dangerous goods in packaged form should be in accordance wilh the individual entries in Enclosure 2.
For packaged dangerous goods the individual schedules of the IMDG Code should be consulted for additional requirements with regard to stowage and segregation.

6.3.4 Segregation between incompatible bulk materials possessing chemical hazards

Unless otherwise required in this section or in the individual entries in Enclosure 1, segregation between incompatible bulk materials possessing chemical hazards should be specially considered.

7.0 Limited quantities for carriage of dangerous goods.

7.1 General

The provisions of this chapter concern the transport of dangerous goods of certain classes packed in limited quantities. The applicable inner packaging quantity limit is specified for each substance in column 6 of the Dangerous Goods List in Enclosure 2. In addition, the word " None " has been indicated in column 6 of the Dangerous

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Good List in Enclosure 2 for each entry not permitted to be transported in accordance with this chapter.

7.2 Packing

a) Dangerous goods transported according to these special provisions should be packaged only in inner packaging placed in suitable packaging. The packaging should meet the provisions of IMDG Code, Chapter 4, Clauses 4.1.1.1, 4.1.1.2 and 4.1.14 to 4.1.1.8 and be so designed that they meet the construction provisions of Chap 6, clause 6.1.4 of IMDG Code. The total gross mass of a package should not exceed 20 kg.

b) Shrink- or stretch-wrapped trays meeting the conditions of Chap. 4, clauses 4.1.1.1, 4.1.1.2 to 4.1.1.8 of IMDG Code are acceptable as outer packaging for articles or inner packaging that are liable to break'or be easily punctured, such as those made of glass, procelain, stoneware or certain plastics, materials, etc. should not be transported in such packaging. The total gross mass of a package should not exceed 20 Kg.

7.3 Stowage

Notwithstanding the stowage provisions indicated in the dangerous Goods List, dangerous goods transported under the provisions of this chapter are allocated stowage category A.

7.4 Segregation

a) Different dangerous goods in limited quantities may be packaged in the same outer packaging, provided the segregation provision of chapter 7.2 are in to account and the goods will not interact dangerously in the event of leakage.

b) The segregation provision of chapter 7.2 are not applicable for packagings containing dangerous goods in limited quantities or in relation to other dangerous goods.

7.5 Marking and labeling

a) Package of dangerous goods transported in accordance with the special provisions of this chapter.

1. need not be labeled nor bear the marine pollutant mark,

2. should unless otherwise provided, be marked with either:

1. the Proper Shipping Name together with the UN Number or

2. the words "dangerous goods in limited quantities of class/classes.....", which should be regarded as the proper Shipping Name, in which case no UN Number need to be marked on the packaging.

b) Cargo transport units containing dangerous goods in only limited quantities need not be placarded. They should, however, be suitably marked on the exterior as "LIMITED QUANTITIES".

7.6 Documentation

a) In addition to the provisions for documentation specified in chapter 4.2, the words "limited quantity" should be included on the dangerous goods declaration together with the description of the shipment, except if the description "dangerous goods in limited quantities of class/classes..." is used.

b) The description "dangerous goods in limited quantities of class/classes...." may be used on the transport document, instead of the Proper Shipping Name from the Dangerous Goods List. The UN Number and packing group of all substances involved has to be included, together with the other information required in 4.2.

c) For aerosols not exceeding 1000 cm^3 (UN 1950), ho sub-division is assigned and the class to be shown on the dangerous goods transpprt document is "2".

Annexure VII

Enclosure 1

List of bulk materials which may liquefy

A.1. General

A.1.1. This Enclosure lists materials which may liquefy if shipped at a moisture content in excess of their transportable moisture limit.

A.1.2. It should be carefully noted that this list of materials is not exhaustive and that there are no physical or chemical properties attributed to them. Consequently, whenever the shipment of a bulk cargo is contemplated, it is essential to obtain currently valid information about its physical properties prior to loading.

A.2 Mineral concentrates

A.2.1. Varying terminology exists to described mineral concentrates. All known terms are listed below but the list is not exhaustive.

A.2.2. The stowage factor of these materials is generally low: from 0.33 m^3/t to 0.57 m^3/t.

BLENDE (Zinc sulphide)
CHALCOPYRITE
COPPER NICKEL
COPPER ORE CONCENTRATE
COPPER PRECIPITATES
GALENA (Lead sulphide)
ILMENITE "dry" and "mois")
IRON ORE CONCENTRATE
IRON ORE (magnetite)
IRON ORE (Pellet feed)
IRON ORE (sinter feed)
IRON PYRITES
LEAD AND ZINC CALCINES (mixed)
LEAD AND ZINC MIDDLINGS
LEAD ORE CONCENTRATE
LEAD ORE RESIDUE
LEAD SILVER ORE
LEAD SULPHIDE
ZINC AND LEAD MIDDLINGS
ZINC ORE CONCENTRATE
ZINC ORE (burnt ore)
ZINC ORE (crude)
LEAD SULPHIDE (galena)
MAGNTITE
MAGNETITE-TACONITE
MANGANIC CONCENTRATE (manganese)
NEFELINE SYENITE (Mineral)
NICKLE ORE CONCENTRATE
PENTAHYDRATE CRUDE
PYRITE
PYRITES (CUPREOUS)
PYRITES (fine)
PYRITES (flotation)
PYRITES (Sulphur)
PYRITIC ASHES (iron)
PYRITIC CINDERS
SILVER LEAD ORE CONCENTRATE
SLIG (iron ore)
ZINC AND LEAD CALCINES
ZINC SINTER
ZINC SLUDGE
ZINC SULPHIDE
ZINC SULPHIDE (blende)

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A.2.3. When loading the above materials, reference should also be made to the entry 'METAL SULPHIDE CONCENTRATES' in Enclosure 2.

A.3 Other materials

A.3.1. Many fine-particle materials, if possessing a sufficiently high moisture content, are liable to flow. Thus any damp or wet cargo containing a proportion of fine particles should be tested for flow characteristics prior to loading.

A.3.2. Fish in bulk can act as a cargo which may liquefy and when proposed for carriage in bulk in a cargo vessel, the competent authority should be consulted. The Code of Safety for Fishermen, Part B, provides useful information on this subject.

A.3.3. The list below contains materials (other than the mineral concentrates listed in paragraph A.2.2) that have been reported as capable of attaining a flow state and is not exhaustive.

Material	Approximate Stowage factor (m^3 / t)
CALCINED PYRITES (SEE ALSO Enclosure 2)	0.43
COAL (fine-particle) (see also Enclosure 2)	
COAL SLURRY (watery silt, material normally under 1mm in size)	0.98 to 1.15
COKE BREEZE (See also Enclosure 3)	1.8
FISH	

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Enclosure - 2

DANGEROUS GOODS LIST
(Table arranged in alphabetical order of the shipping names)
(INCLUSIVE OF list of MHB)

1. The table is divided in to 10 columns as follows :

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1395	Aluminium Ferrosilicon powder (including briquettes)	4.3	I	-	None	235	No 1	Category D	Finely divided alkali or alkaline earth metal, e.g. metallic sodium suspended in a flammable liquid such as toluene, xylene, naptha, kerosene, etc Reacts violently within moisture, water or acids, evolving hydrogen, which may be ignited by the heat of the reaction.
1438	Aliminium Nitrate	5.1	III	-	1 Kg	601, 605	No 1	Category A	Colourless or white crystals, Deliquescent Soluble in water Slightly corrosive Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.
1398	Aluminium, Silicon Powder, Uncoated	4.3	III	Note 8	1 Kg	601, 605	No 1	Category A, only to be loaded under dry weather conditions. Under deck in a mechanically vanilated space, clear of living quarters	In contact with water, caustic alkalis or acids, generates heat and evolves hydrogen a flammable gas. May also evolve silanes, which are toxic and may ignite spontaneously.
1942	Aluminium Nitrate with not more than 0.2% combustible substances including any organic substance calculated as carbon to the exclusion of any other added substance calculated as carbon to the exclusion of any other added substance	5.1	III	Note 11	1 Kg	610	No 3	Category A, For special stowage provisions, see 7.1.11.5 "Away from sources of heat. Separated from combustible material (particularly liquids) bromates, chlorates, chlorites, hydrochlorities,	Crystals, granules or prills, soluble in water, Supporter or combustion./ a major fire aboard a vessel carrying this substance may involve a risk of explosion in the event of contamination (e.g. by fuel oil) or strong confinement. An adjacent detonation may also involve the risk or explosion. If heated strongly,

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
								nitrites, perchlorates, permanganates and powdered metals	Decomposes, giving off toxic gases which support combustion.
2067	Aluminium Niterate & Fertilizers : Uniforms non segregating mixtures of ammonium nitrate with added matter which is inorganic and chemically inert towards ammonium nitrate with not less than 90% of ammonium nitrate and not more than 0.2% of combustible material (including organic material calculated as carbon) or with more than 70% but less than 90% ammonia nitrate and not more than 70% but less than 90% ammonium nitrate and not more than 0.4% total combustible material.	5.1	III	Note 1	1 Kg	610	No 3	Category A, For special stowage provisions, see 7.1.1.5 "Separated from" combustible material (particularly liquids) bromates, chlorates, chlorites, hydro – chloritis, hydro chlorites, nitrites, perchlorates, permanganates and powdered metals/ "Away from " sources of heat.	Crystals, granules or prills. Wholly or partly soluble in water. Supporters of combustion. A major fire aboard a vessel carrying substance may involve a risk of explosion in the event of contamination (e.g. by fuel oil) or strong confinement. An adjacent detonation may also involve a risk of explosion, if heat strongly, decompose, giving off toxic gases and gases which support combustion.
2068	Ammonium Nitrate Fertlizers : Uniform non – segrageting mixtures of ammonium nitrate with calcium carbonate and/or dolomite with more than 80% but less than 90% ammonium nitrate and not more than 0.4% total combustible material	5.1	III	Note 1 Note 2	1 Kg	610	No 3	Category A. For special stowage provisions, see 7.1.11.5 "Separated from" combustible material (particularly liquids) bromates, chlorates, chlorites, hydrochlorities, nitrites, perchlortes, permanganates and powdered metals "Away from " source of heat	Crystals, granules or prills. Wholly or partly soluble in water. Supporters of combustion. A major fire aboard a vessel carrying these substances may involve a risk of explosion, if heat strongly decompose, giving off toxic gases and gases which support combustion.
2069	Ammonium Nitrate Fertilizers : Uniform non segregating mixtures of ammonium nitrate /	5.1	III	Note 1 Note 2	1 Kg	610	No3	Category A, For special stowage provisions, see 7.1.11.5 "Separated from" combustible	Crystals granules or prills. Wholly or partly soluble in water.

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Ammonium sulphate with more than 45% but not more than 70% ammonium nitrate and not more than 0.4% total combustible material							Material (particularly lioquids) bromates, chlorates, chlorites, hydrochlorities, nbitrites, erchlorates, permanganates and powdered metals "Away from" source of heat.	Supporter of combustion. A major fire aboard & vessel carrying these substances may involve a risk of explosion, if heat strongly decompose giving off toxic gases and gases which support combustion.
2070	Ammonium Nitrate Fertilizers: Uniform non-segregating mixtures of nitrogen/phosphate or nitrogen/potash types or complete fertilizers or nitrogen/ phosphate/potash type with more than 70% but less than 90% ammonium nitrate and not more than 0.4% total combustible material.	5.1	III	Note 1	1 Kg	610	No 3	Categtory A. for special stowage provisions see 7.1.11.5 "Separated from" combustible matrial (particularly liquids) bromates, chlorates, chlorities, hydrochlorities, nitrites, perchlorates, permanganates and powdered metals "Away from" source of heat	Crystals granules or prills. Wholly or partly soluble in water. Supporters of combustion. A major fire aboard a vessel carrying these substances may involve a risk of explosion. If heat strongly decompose giving off toxic gases and gases which support combustion.
2071	Uniform non-segregating mixtures of nitrogen/phosphate or nitroten/ potash types of complete fertilizers of nitrogen phosphate/ postash type containing not more than 70% of ammonium nitrate and not more than 0.4% of total added combustible material or containing not more than 45% of ammonium nitrate with unrestricted combustible material.	9	III	Note 1	1 Kg	610	No 3	Category A	
1446	Barium Nitrate	5.1	III	-	500 g	700	No.2	Category A	White crystals, Mixtures with combustible material are readily ignited and many burn fiercely.

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
									Toxic if swallowed by skin contact or by dust inhalation.
BC003	Calcined Pyrites	MHB		-	NA	700	No 2	Separated from Food stuffs	Sold, finely divided and dusty substances, being a residual product from chemical industry where all types of metal sulphides are wither used for the production of sulphuric acid or are processed to recover elemental metals. The residues are highly corrosive to steel. Harmful and irritating by dust inhalation.
1454	Calcium Nitrate	5.1	II	-	500g	235	No 4	Category A	White deliquescent solid, soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.
2969	Castor beans of Castor Meal or Castor Flake	9	II	-	None	None	No 6	Category E Clear of living quarters "Away from" food stuffs class 5.1 "Separated from" class 6.2	Whole beans of meal. The latter is the residue remaining after the oiul has been extracted from the seeds. Castor beans contain a powerful allergen which by inhalation of dust of by skin contact with crushed bean products, can give rise to severe irritation or the skin, eyes and mucous membranes in some persons. They are also toxic by ingestion. When handling these products wear at least & dust mask and goggles. Avoid unnecessary skin contact.
BC005	Charcoal	MHB			NA	None	None 5	Segregation as required for class 4.1 materials. Separated form oily materials.	May possibly ignite spontaneously. Contact with water may cause self heating. Liable to cause oxygen depletion in the cargo space.
BC010	Coal	MHB			NA	311 616	No 13	Boundaries of cargo spaces should be	May emit methane. A mixture of air/methane forms an explosive

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
								resistant to fire and liquids. Separated from materials of classes 4 and 5.1	Atomosphere which can be ignited by sparks. Coals may oxidize and hence deplete oxygen from the compt.
1363	Copra	4.2	III	Note 4	None	None	No 5	Category A. Keep as dry as reasonable practicable. Protect from sparks and open flame. Provide a good through ventilation for bagged cargo. Double strip stowage recommended. The cargo shoule be stowed "away from" pipes and bulkheads which are liable to become heated (e.g. engine room or heated fuel bulkheads). During the voyage regular temperature readings should be taken at varying depths in the hold and recorded if the temperature of the cargo exceeds the ambient temperature and continues to increase, ventilation should be closed down.	Dried kernels of coconuts with a penetrating rancid doro, which may taint other cargoes.
BC015	Direct, Reduced iron DRI*	MHB			NA	None	No 14	Boundaries of cargo should be resistant to fire and passage of water. Separated from materials of classes 4, 5 and acids of class 8 in packaged form	DRI may react with water and air to produce hydrogen and heat. The heat produced may cause ignition. Oxygen in an enclosed space may be depleted.

Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC016	Direct Reduced Iron *	MHB			NA	None	No. 14	Boundaries of cargo spaces should be resistant to fire and passage of water. Separated from materials of classes 4.5 and acdis of class 8 in packaged form.	Material may slowly evolve hydrogen when in contact with water.
BC020	Ferrosphosphorus	MHB			NA	601 605	No 1	Segregation as required for 4.3 materials	May evolve flammable and toxic gases on contact with water.
1408	Ferrosilicon	4.3	III	Note 8	1 Kg	601, 605	No 1	Category A Only to be loaded under dry weather conditions. Keep as dry as reasonably, practicable under deck in a mechanically ventilated cargo space. Clear of living quarters.	In contact with the moisture , water, alkalis or acids, may evolve hydrogen, a flammable gas, which may form explosive mixtures with air and also arsine and phosphine which are highly toxic gases. These gases are evolved in proportions which under mechanically ventilated conditions make the poison hazard by far predominant over the explosion hazard. The rate of gas evolution is greatest from freshly broken surfaces, so is liable to increase whenever the cargo is disturbed, such as during loading, Toxic of swallowed, by skin contact or by vapour inhalation.

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC022	Ferrosilicon	MHB			NA	601, 605	No 1	Category A, only to be loaded under dry weather conditions. Keep as dry as reasonably practicable. Separated form food stuffs	In contact with moisture, water, alkalis or acids, may evolve hydrogen, a flammable gas, which may form explosive mixtures with air, and also arsine and phosphine, which are highly toxic gases. These gases are evolved in proportions which under mechanically ventilated conditions make the poison hazard by far predominant over the explosion hazard. The rate of gas evolution is greatest from freshly broken surfaces, so is liable to increase whenever the cargo is disturbed such as during loading toxic if swallowed by skin contact or by vapour inhalation.
2793	Ferrous Metal, Borings, Shavings Turnings of Cuttings	4.2	III	Note 7	None	None	No 12	Category A, separated form food stuffs	These cargoes are liable to self heating and to ignite spontaneously, particularly when in a finely divided form wet of contaminated with such materials as unsaturated cutting oil, oily rags and other combustible matter. Self heating or inadequate ventilation may cause dangerous depletion of oxygen in the stowage spaces. Excessive amounts of cast iron borings or organic materials may encourage heating. The swarf should be protected from moisture prior to and after loading, if during loading the weather is inciment, hatches should be closed and otherwise protected to keep the material dry.

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2216	Fishmeal, Stabilized, Fishscrap, Stabilised.	9	III	Note 3 Note 4 Note 10	None	None	No 7	Category B "Separated from class 6.2 "Separated by a complete compartment or hold from goods of class 1 except from those in division 1.4. For special stowage provisions.	Brown to greenish-brown product obtained through heating and drying or oily fish. Strong odour which may affect other cargo liable to heat spontaneously unless of low fat content of effective anti oxidant treated.
BC025	Fluorspar	MHB			NA	None	No 2	Separated from food stuffs and all class 8 materials	Harmful and irritating by dust inhalation. Exposure of persons to dust must be minimized.
1376	Iron Oxide, Spent	4.2	III		None	635, 640, 645	No 6	Category E	Obtained from coal gas purification, Strong odour which may taint other cargo, Liable to heat and ignite spontaneously. May evolve hydrogen sulphide, sulphur dioxide and hydrogen cyanide, which are toxic gases. This substance should have been cooled and weathered for not less than eight weeks before shipment, unless packed in a metal drum.
1469	Lead Nitrate	5.1	II		500g	110	No 4	Category A	White crystals, Soluble in water Mixture with combustible material are readily ignited and may burn fiercely. Toxic if swallowed by skin contact or by dust inhalation.
BC030	Lime (Unslaked)	MHB			NA	705	No 2	Separated from all packaged dangerous goods.	Unslacked lime combines with water to form calcium hydroxide or magnesium hydroxide. This reaction develops great dead of heat which may cause ignition of nearby combustible materials.

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC032	Magnesia (Unslaked)	MHB			NA	705	NO 2	Separated from all packaged dangerous goods	Unslacked magnesia combines with water to magnesium hydroxide. This reaction develops heat which may cause ignited and may burn fiercely. Harmful if swallowed.
1474	Magnesium nitrate	5.1	III		1 kg	235	No 4	Category 4	White deliquescent crystals soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.
BC035	Metal Sulphide Concentrates	MHB			NA	225, 635, 640	No 8	Separated from food stuffs and all class 8 acids	Some suphide concentrates are liable to oxidation and may have a tendency to self-heat, with associated oxygen depletion and emission of toxic fumes. Some materials may present corrosion problems.
BC040	Petroleum coke	MHB			NA	311	No 6	Separated from foodstuffs. Separated by a complete compartment or hold from all other dangerous and hazardous substances.	Black, finely divided residue from petroleum refining in the form of powder of small pieces. Should not be loaded when the temperature exceeds 107 degree C.
BC050	Pitch Prill, Prilled Coal Tar Pencil Pitch	MHB			NA	None	No 6	Segregation as required for class 4.1 materials	Exists in various sizes. Melts when heated. Combustible burns with dense smoke, Hazard according to flammability. Dust may cause skin and eye irritation.
1488	Potasssium Nitrate	5.1	III	-	1 Kg.	235	No. 4	Category A	White crystals or powder. Soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed.
2912	Radioactive material Low specific Activity Material (LSA – 1)	7	-		None	None	No 11	Category A, except for uranyl nitrate hexahydrate solution for which category D applies. Separated from food stuffs. For segretation. See 7.2.9	See transport Schedule 5

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2913	Radioactive Material, surface contaminated object (s) (SCO – 1)	7	-		None	None	No 11	Category A separated from food foodstuffs.	Cargo spaces used for these materials should not be used for other goods unless decontaminated.
BC055	Sawdust	MHB			NA	None	No 5	Segregation as required for class 4.1 materials. Separation from all class 5.1 liquids and all class 8 liquids	Liable to cause oxygen depletion within cargo space. If not shipped clean, dry and free from oil, liable to spontaneous combustion.
1386	Seed Cake	4.2	III	Note 6	None	None	No 7	Category A, Keep dry. "Away from" all sources of heat. For special stowage provisions. See IMDG Code.	Residue remaining after oil has been extracted by a solvent process from oil bearing seeds. Used mainly as an animal feed or fertilizer. The most common seed cakes include those derived from coconut (copra) cottonseed, ground nut (peanut) linseed, maize (hominy chop) niger seed, palm kernet, rape seed, rice bran, soya bean and sunflower seed and they may be shipped in the form of cake, flakes, pellets, meal etc. May self-heat slowly it wet and ignite spontaneously. Before shipment, this cargo should be properly aged. The duration of ageing varies with the oil content. The seed cake should be substantially free from flammable solvent. Smoking and the use of naked lights should not be allowed during loading and unloading and on entry to cargo spaces at any other time.
2217	Seed Cake	4.2	III		None	None	No 7	Category A Keep	

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC060	Silicomanganese	MHB			NA	601, 605	No 1	Segregation as required for class 4.3 materials. Separated from food stuffs and all class 8 liquids.	In contact with water, alkalis or acides may evolve hydrogen, a flammable gas, may also produce phosphine and arsine which are highly toxic gases.
1498	Sodium nitrate, chile saltpeter Chilean natural nitrate	5.1	III	-	1 kg	235	No 4	Category A	Colourless deliquescent solid. Soluable in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed. This substance in the impure form is known as chile Saltpetre.
1499	Sodium Nitrate and	5.1	III	-	1 Kg	235	No 4	Category A	Colourless, hygroscopic solid,
	Pottasium Nitrate Mixture								Soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Harmful if swallowed. Mixture prepared as a fertilizer.
1350	Sulphur	4.1	III		3 Kg	635	No 8	Category A. Protect from sparks and open flame "Separated from" class 5.1.	When involved in a fire, evolves toxic, very irritating and suffocating gas. The dust forms an explosive mixture with air which may be ignited by static electricity. Forms explosive and extremely sensitive mixtures with most oxidizing substances such as chlorates, nitrates perchlorates or permanganates. Corrosive to steel, in particular in the presence of moisture should not be carried as a bulk cargo. The provisions of this code should not apply to sulphur when it is (1)transported in quantities of less than 400 Kg per package or (20 formed to a specific shape (such as prills, granules, pellets, pastilles or flakes)

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Un.No	Proper Shipping Name	Class or Division	Packing Group	Special Provisions	Limited Quantities	MFAG Table	Ref Note	Stowage & aggregation	Properties & Observations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
BC065	Tankage	MHB			NA	None	No 7	Segregation as required for class 4.2 materials. Separated by a complete cargo space or hold from food stuffs	Subject to spontaneous heating and possible ignition. Possibly infectious.
BC070	Vanadium Ore	MHB			NA	135	No 9	Segregation as required for class 6.1 materials. Separated form food stuffs	Dust may contain toxic constituents.
BC075	Woodchips	MHB			NA	615	No 5	Segregation as required for class 4.1 materials	Some consignments may be Subject of oxygen and an increase of carbon dioxide in the cargo space.
BC080	Wood Pulp Pellets	MHB			NA	615	No 5	Segregation as required for class 4.1 materials	Some consignments may be subject to oxidation, leading to depletion of oxygen and an increase of carbon dioxide in the cargo space.
1435	Zinc Ashes	4.3	III	Note 9	1 Kg	None	No 10	Category A	In contact with moisture or water ,liable to evolve dangerous gases, including hydrogen, a flammable gas.

NA : not applicable

Explanation of various columns

a) Column 1 : This column contains the United Nations Number assigned for a particular dangerous goods.
b) Column 2 : Contains the exact shipping name.
c) Column 3 : Contains the class or division this falls into.
 - Packaging Group I : Substances presenting high danger.
 - Packaging Group II : Substances presenting medium danger
 - Packaging group III : Substances presenting low danger.
d) Column 4 : Contains the packing group number where assigned to the substance or article.
e) Column 5 : Contains special provisions for carriage of goods as follows :

Note 1 : The transport of the following substances is prohibited.
AMMONIUM BROMATE
AMMONIUM BROMATE, SOLUTION
AMMONIUM CHLORATE

AMMONIUM CHLORATE, SOLUTION
AMMONIUM COMPOUND, MIXTURE
AMMONIUM COMPOUNDS, SOLUTION
AMMONIUM NITRATE liable to self-heating sufficient to initiate a decomposition
AMMONIUM NITRATES and mixutres of an inorganic nitrite with an ammonium salt
AMMONIUM PERMANGANATE
AMMONIUM PERMANGANATE, SOLUTION
CHLORIC ACID, AQUEOUS SOLUTION with a concentration exceeding 10 %
ETHYL NITRATE pure
HYDROCYANIC ACID with more than 20% acid, by mass
HYDROGEN CYANIDE, SOLUTION with more than 45% HYDROGEN CYANIDE
MERCURY OSXCYANIDE pure
METHYL NITRATE
PERCHLORIC ACID with more than 72% acid by mass
SILVER PICRATE, dry or wetted with less than 30% water by mass
ZINC AMMONIUM NITRATE

Note 2 : Uniform non-segregating MIXTURES OF AMMONIUM NITRATE/AMMONIUM SULPHATE with not more than 45% AMMONIUM NITRATE , and not more than 0.4% total combustible material are not subject to the provisions of this Code.

Note 3 : The consignment should be accompanied by a certificate from a recognized authority stating :

- moisture content;
- fat content
- details of anti-oxide treatment for meals older than 6 months (for UN 2216 only);
- anti-oxide concentration at the time of shipment, which must exceed 100mg/kg (for UN 2216 only)
- packing, number of bags and total mass of the consignment;
- date of production

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No weathering/curing is required prior to loading, Fishment under UN 1374 should have been weathered for not less than 28 days before shipment.

When fishment is packed into containers, the containers should be packed in such a way that the free air space has been restricted to the minimum.

Note 4 : This substance should preferably have weathered for not less than one month before shipment unless a certificate form a person recognized by the competent authority of the country of shipment states a maximum moisture content of 5%.

Note 5 : The provisions of this Codes should not apply, to-:

- Fishment when acidified and wetted with more than 40% water, by mass, irrespective of other factors :

- Consignment of fishment which are accompanied by a certificate issued by a recognized competent authority of the country of shipment or other recognized authority stating that the product has no self heating properties when transported in packaged form : or

- Fishment manufactured form "white" fish with a moisture content of not more than 12% and a flat content of not more than 5% by mass

Note 9 : If satisfied, as a result of tests, that such relaxation is justified, the competent authority may permit.

- the seed cakes described as "SEED CAKE, containing vegetable oil (a) mechanically expelled seeds, containing more than 10% of oil more than 20% of oil and moisture combined" to be transported under conditions governing "SEED CAKE, containing vegetable oil (b) solvent extractions and expelled seeds, containing not more than 10% of oil and, when the amount of moisture is higher than 10% not more than 20% of oil and moisture combined", and

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- the seed cakes described as "SEED CAKE", containing vegetable oil (b) solvent extractions and expelled seeds, containing not more than 10% of oil and, when the amount of moisture is higher than 10% not more than 20% of oil and moisture combined" to be transported under conditions governing SEED CAKE, UN 2217

Certificates from the shipper should state oil content and moisture content and should accompany the shipment.

Note 7 : A consignment of this substance which is accompanied by a declaration form the shipper stating that it has no self-heating properties is not subject to the provision of this code.

Note 8 : Requires a certificate from the maker or shipper, stating that the shipment was stored under cover, but in the open air, in the size in which it was packaged, for not less than 3 days prior to shipment.

Note 9 : Substances which do not evolve flammable gasses when wet, which are accompanied by a certificate from the shipper stating that the substance, as offered for shipment, does not evolve flammable gases when wet, are not subject to the provisions.of this Code.

Note 10 : Stabilization of fishmeal should be achieved to prevent spontaneous combustion by effective application of between 400 and 100 mg/kg (ppm) ethoxquin, or liquid BHT (butylated hydrooxytoluene) or between 1000 and 4000 mg/kg (ppm) BHT in power form at the time of production. The said application should occur no longer than twelve months prior to shipment, Fishcrap or Fishmeai should contain at least 100 ppm of anti-oxidant ethoxyquin at the time of shipment.

Note 11 : UN 1942 may be transported in bulk packaging if approved by the competent authority.

f) Column 6: Contains maximum quantity per inner packaging authorised for transport.(refer Chap 7.0)

g) Column 7: Contains guidance number of MFAG(Medical First Aid Guide) to be refered.

h) Column 8: Contains notes regarding emergency information. (See Table A below for Emergency Instructions),

i) Column 9: contains the stowage and Segregation provisions as per Sec. 6.for MHB and dangerous goods. The various categories are as follows:

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Stowage Category	Cargo Vesels or passenger Vessels carrying a no. of passengers limited to not more than 25 or to 1 passanger per 3 m of overall length, which ever is greater.	Other Passanger Vessels in which the limiting number of passengers transported is exceeded.
A	On deck or under deck	On deck or under deck
B	On deck or under deck	On deck only
C	On Deck only	On deck only
D	On deck only	Prohibited
E	On deck or under deck	Prohibited

j). Column 10 : contains brief properties and observations of the dangerous goods.

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Table A : Emergency Instructions :

Note NO.	Special energy equipment to be carried	Emergency Procedure	Emergency Action in case of Fire	Medical First Aid			Remarks
1	Self contained breathing apparatus	Wear self - contained breathing apparatus	Batten down and use CO_2 is available. Do not use water	UN/BC No.	Material	MFAG Table No.	Materials are virtually non Combustible when dry Ref. : EmS schedule No. B2
				1395	ALUMINIUM FERROSILICON	601 & 605	
				1398	ALUMINIUM SILICON	None	
				BC 020	FERROPHOSPHOR US	601 & 605	
				1408, BC 022	FERROSILICON	601 7 605	
				BC 060	SILICOMANAGANESE	NONE	
2.	NIL	NIL	NIL (non-combustible)	UN/BC No.	MATERIAL	MFAG Table No.	If LIME (UNSLAKED) or MAGNESIA (UNSLAKED) involved in a fire, do not water. Ref. : EmS schedule no. B3
				BC 003	CALCINED PYRITES	700	
				BC 025	FLUORSPAR	705 & 750	
				BC 030	LIME (UNSLAKED)	705	
				BC 032	MAGNESIA (UNSLAKED)	705	
3	Protective clothing (boots, gloves, coveralls, headgear). Self contained breathing apparatus	Wear protective clothing and self contained breathing apparatus.	Fire in a cargo space containing this material : Open hatches to provide maximum ventilation. Vessels fixed – fighting installation will be Inadequate. Use copious quantities of water.	MFAG table No. 610.			Ref. : EmS Schedule No. B4.

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			Flooding of the cargo space amy be considered but due consideration should be given to stability. Fire in an adjacent cargo space : Open hatches to provide maximum ventilation. Heater transferred from fire is an adjacent space can cause the material to				
4.	Protective clothing (gloves. Boots. Coveralls, headgear) self contained breathing apparatus. Spray nozzles.	Wear protective clothing and self contained breathing apparatus.	Use copious quantities of water, which is best applied in the form of a spray to avoid disturbing the surface of the material. The material may fuse or melt, in which condition application of water may result in extensive scattering of the molten materials. Exclusion of air or the use of CO_2 will not control the fire. Due consideration should be given to the effect on the stability of the vessel due to accumulated water.	UN/BC No.	Material	MFAG Table No.	These material are non-combustible unless contaminated. Ref : EmS Schedule No. B5
				1438	ALUMINIUM NITRATE	235	
				1446	BARIUM NITRATE	120	
				1454	CALCIUM NITRATE	235	
				1469	LEAD NITRATE	110	
				1474	MAGENSIUM NITRATE	235	
				1486	POTASSIUM NITRATE	235	
				1498	SODIUM NITRATE	235	
				1499	SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	235	

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5.	NIL	NIL	Batten down; use vessel's fixed fire – fighting installation if fitted. Exclusion of air may be sufficient to control fire	UN/BC No.	Material	MFAG Table NO.	Ref. EmS Schedule No. B6
				BC 005	CHARCOAL	NONE	
				1363	COPRA	NONE	
				BC 055	SAWDUST	Refer to paragraph 6.1.1 (Asphyxia) of the MFAG.	
				BC 075	WOODCHIPS	Refer to Paragraph 6.1.1 (Asphyxia) of the MFAG	
				BC 080	WOOD PULP PELLETS	Refer to Paragraph 6.1.1 (Asphyxia) of the MFAG	
6.	Protective clothing (gloves, boots, coveralls headgear) Self contained breathing apparatus. spray nozzles	Wear protective clothing and self contained beathing apparatus.	Batten down ; use vessel's fixed fire –fighting installation if available Exclusion of air may be sufficient to control fire.	UN/BC NO.	Material	MFAG table no.	Ref. EmS Schedule No. B7
				2969	CASTOR BEANS	851	
				1376	IRON OXIDE, SPENT	635, 640 & 645	
				BC 040	PETROLEUM COKE	311	
				BC 050	PITCH PRILL	NONE	

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<table>
<tr>
<td>7.</td>
<td>Self–contained breathing apparatus</td>
<td>Wear self-contained breathing apparatus</td>
<td>Batten down, use vessel's fixed fire-fighting installation, if fitted.</td>
<td colspan="3">
<table>
<tr><th>UN/BC No.</th><th>Material</th><th>MFAG Table No.</th></tr>
<tr><td>2216</td><td>FISHMEAL, STABILIZED OR FISCHCRAP STABILISED</td><td>NONE</td></tr>
<tr><td>1386 & 2217</td><td>SEED CAKE</td><td>Refer to paragraph 6.1.1 (Asphyxia) of the MFAG</td></tr>
<tr><td>BC 065</td><td>TANKAGE</td><td>*</td></tr>
<tr><td colspan="3">* To be declared the shipper</td></tr>
</table>
</td>
<td>Material
SEED CAKE
UN Nos. 1386 & 2217

Ref EmS Schedule No.
B8

TANKAGE
BC 065</td>
<td>Remarks
In the case of solvent-extracted seed cake, the use CO2 should be withheld unit is apparent.

Use full protective othi in case of fire situation.</td>
</tr>
<tr>
<td>8.</td>
<td>Self-contained breathing apparatus</td>
<td>Wear self-contained breathing apparatus</td>
<td>Batten down, use vessel's fixed fire-fighting installation. Exclusion of air may be sufficient to control the fire. Do not use water.</td>
<td colspan="3">
<table>
<tr><th>UN/BC No.</th><th>Material</th><th>MFAG Table No.</th></tr>
<tr><td>BC 035</td><td>METAL SULPHIDE CONCENTRATES</td><td>225, 635, 640 & refer to paragraph 6.2.2 (Asphyxia) of the MFAG, 635 (Fire risk only)</td></tr>
<tr><td>1350</td><td>SULPHUR</td><td>635 (fire riskonly)</td></tr>
</table>
</td>
<td colspan="2">Fire will most likely be detected by choking smell sulphur dioxide.

Ref. EmS Schedule No. B9</td>
</tr>
<tr>
<td>9.</td>
<td>Self-contained breathing apparatus</td>
<td>Wear self-contained breathing apparatus</td>
<td>Batten down, use vessel's fixed fire-fighting installation if fitted. Exclusion of air may be sufficient to control the fire.</td>
<td colspan="3">MFAG table no. 135</td>
<td colspan="2">Ref : EmS Schedule No. B1</td>
</tr>
</table>

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10	Protective clothing (gloves, boots, coveralls, headgear) Self-contained berthing apparatus.	Wear protective clothing and self contained breathing apparatus	Batten down, use vessel's fixed fire-fighting installation if available. Do not use water	MFAG table no. NONE	If fire cannot be extinguished, endeavour to stop fire from spreading an head for the nearest suitable port. Ref. EmS Schedule No. B1
11	Protective clothing (gloves, boots, coveralls, headgear) Self contained berthing apparatus	Wear protective clothing and Self-contained breathing apparatus	Batten down, use vessel's fixed fire – fighting installation if fitted. Use water spray to control spread of dust, if necessary.	See subsection 7.4 of the MFAG Radio for medical advice.	Most materials are likely to be non-combustible. Speedily collect and isolate potentially contaminated equipment and cover, Seel expert advice. Ref. EmS Schedule No. B1
12	NIL	NIL	Whilst at sea, any rise in surface temperature of the material indicates a self-heating reaction problem. If the temperature should rise to 80^0 C a potential fire situation is developing and the vessel should make for the nearest suitable port. Batten down. Water should not be used at sea. Early application of an inert gas to a smouldering situation may be effective.	Refer to paragraph 6.1.1 (Asphyxia) of the MFAG	In port copious quantities water may be used but consideration should be given to stability. Ref. EmS Schedule No. B1

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13.	NIL	NIL	Batten down. Exclusive of air may be sufficient to control the fire. Do not use water. Seek expert advice and consider heading for nearest suitable port.	MFAG table No. 311. 616 & refer to paragraph 6.1.1 (Asphyxia) fo the MFAG.	The use of CO2 or insert ga if available should be withheld until fire is apparent. Ref. EmS Schedule No. B1
14.	NIL	NIL	Keep battened down. Do not use water. Seek expert advice. Early application of an tnert gas to a smouldering situation may be effective.	Refer to paragraph 6.1.1 (Asphyxia) of the MFAG	Ref. EmS Schedule No. B1

Enclosure 3

List of bulk materials which are neither liable to liquefy (Enclosure 1) nor to possess chemical hazards (Enclosure 2)

1. It should be carefully noted that this list of materials is not exhaustive and that the physical properties attributed to them are for guidance only.

2. The following materials are non- cohesive when dry :

AMMONIUM NITRATE FERTILIZERS (NON-HAZARDOUS)
AMMONIUM SULPHATE
BORAX ANHYDROUS
CALCIUM NITRATE FERTILIZER
DIAMMONIUM PHOSPHATE
MONOAMMONIUM PHOSPHATE
MURIATE OF POTASH (POTASSIUM CHLORIDE) (KCl)
POTASH
POTASSIUM SULPHATE
SUPERPHOSPHATE
UREA

Prior to completion of loading, the angle of repose of the materials to be loaded should be determined (see section 6) so as to determine which provisions of this Code relating to trimming apply (see section 5).

3. All other materials listed in this Enclosure are cohesive and use of the angle of repose is, therefore, not appropriate. Materials not listed should be treated as cohesive until otherwise shown.

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Annexure – VII

Material	Approx. angle of repose	Approx stowage factor (m^3/t)	Properties, observations and special requirement
ALFALFA		1,39 TO 1.97	Material derived from dried alfalfa grass. Shipped in the form or meal, pellets etc. Requires a certificate from a competent authority or shipper stating that the material as shipped does not meet the requirements for seed cake under Enclosure-2.
ALUMINA		0.92 TO 1.28	Fine white very dusty or colourless crystalline powder. Insoluble in water and organic liquids. Irritating to mucous membranes and eyes. Moisture : 0% to 5% Use dust mask and goggles when handling.
ALUMINA calcined (CALCINED CLAY)		0.61	Consists of lumps, particles and pieces with small amount of powder, dusty. Moisture : None Light to dark grey
ALUMINA SILICA		0.70	Consisting of alumina and silica crystals– 60% Lumps 40% coarse – grained powder Moisture : 1% to 5% White
		0.78 to 0.84	Length : 6.4 mm to 25.4 mm Diameter : 6.4 Moisture : None Off-White
ALUMINA SILICA Pellets AMMONIUM NITRATE FERTILIZERS (NON-HAZARDOUS)	27° to 45°	0.83 to 1.00	(A) Uniform non-segregating mixtures of ammonium nitrate with calcium carbonate and/ or dolomite, containing not more than 80% of ammonium nitrate, provided they contain not less than 20% of these carbonates (of minimum purity 90%) and not more than 0.4% of total combustible material (see also Enclosure 2- ammonium nitrate fertilizers type A2). (B) Uniform non-segregating mixtures of ammonium nitrate / ammonium sulphate containing not more than 45% of ammonium nitrate and not more than 0.4% of total combustible material (see also Enclosure 2 – ammonium nitrate fertilizers type A3) (C) Uniform non – segregating mixtures of nitrogen / phosphate or nitrogen/potash types or complete fertilizers of nitrogen /phosphate /potash type containing note more than 70% of ammonium nitrate and note more than 0.4% of total combustible material or containing not more than 45% of ammonium nitrate with unrestricted combustible matter.

Annexure – VII

Material	Approx. angle	Approx	Properties, observations and special

	of repose	Stowage factor (m^3/t)	requirement
AMMONIUM NITRATE (CONTINUED)			The mixtures are considered non – hazardous when, as a result of testing by the trough test they are found to be free from the risk of self sustaining. Decomposition, provided they do not contain an excess of nitrate calculated as potassium nitrate above the ammonium nitrate content calculated in the notes below greater than 10% by weight of the mixture. Mixtures in which excess nitrate is present in greater proportions than this should be referred to the competent authority (see also Enclosure 2 ammonium fertilizers type B) Notes (1) All nitrate ions for which there is present in the mixture a molecular equivalent of ammonium ions should be calculated as ammonium nitrate . (2) Ammonium nitrate materials which are liable to self-heating sufficient to initiate a decomposition are prohibited. (3) The compatibility of non-hazardous ammonium nitrate mixtures with other materials which may be stowed in the same cargo space should be considered before loading.
AMMONIUM SULPHATE	28" TO 35"	0.95 TO 1.06	Chemical Fertilizers A crystalline solid, which readily absorbs moisture Moisture : 0.04 to 0.5% Liable to cake as a result of absorption of moisture. Carried in bulk. Danger of heavy corrosion of framing side plating etc is present if sweating of cargo space develops. The recommendations given for materials of class 8 with regard to the cleaning of the cargo space after unloading should be followed (See Section 9 Materials possessing chemical hazards, paragraph 9.3.2.4) Ammonia Odour Subject to natural loss of weight.
ANTIMONY ORE (STIBNITE) AND RESIDUE		0.34 TO 0.43	
BARYTES		0.34	Crystalline ore mineral. A sulphate of barium. Used in paints textiles and as filler for paper. 80% lumps 6.4mm to 10.16 mm 20% fines < 6.4mm Moisture : 1% to 6%

Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
BAUXITE		0.72 TO 0.84	Clay-like and earthy ore. The principal ore of alluminium 70% to 90% lumps : 2.5mm to 500 mm

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			10% to 30% powder Moisture : 0% to 10% Brownish yellow.
BORAX ANHYDROUS (CRUDE OR REFINDED)	35°	0.78	Uniform granular material less than 1.4mm in size. Highly refined is of white crystalline appearance. The crude material is normally of yellow-white appearance; can be dusty, dust is irritating, but not toxic, if inhaled, Hygroscopic and will cake if wet; very abrasive.
BORAX (PENTAHYDRATE CRUDE "RASORITE 46")		0.92	Fine Powder and granule less than 2.36mm in size, grey, dusty, dust is irritating if inhaled but not toxic. Hygroscopic and will cake if wet. Used as the major source of borax and boron products.
CALCIUM NITRATE FERTILIZER	34"	0.90 to 0.95	Granules, size 1mm to 4mm, consisting mainly of double salt (calcium nitrate and ammonium nitrate) and containing not more than 15.5% total nitrogen and at least 12% water. In case the total nitrogen content exceeds 15.5% or the water content is less than 12% see Enclosure 2.
CARBORUNDUM		0.56	A hard crystalline compound of carbon and silicon. Slight toxicity by inhalation. Used as an abrasive and for refractory purposes. 75% lumps : 203, 2mm 25% lumps, 12.7 mm Moisture : none Odourless Black
CEMENT		0.67 to 1.00	Fine grey powder. Maximum particle size 0.1mm Both specific gravity and angle of repose are dependent upon the amount of air in the material. Cement contracts approximately 12% from an aerated to non aerated state. Normally cement is carried in specially designed vessels and trimming is carried out with special equipment. Masters of vessels not specially fitted for the carriage of cement or who are unaware of the characteristics of such cargo should consult local authorities for advice. Considering the fluid nature of the cement prior to settlement, care should be taken to maintain the vessel upright during loading, and attention should be given to ensuring that the material is trimmed reasonably level. Consideration material is trimmed reasonably level. Consideration should also be given to taking any necessary measures to ensure that the cargo has settled and is

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
CEMENT (CONTINUED)			Stable before the vessel sails, especially where the loading rate is extreme in relation to the total deadweight loaded. After the material has settled, shifting should not normally occur unless the angle of the surface with the horizontal plane exceeds 30° Should be kept dry prior to loading, bilges should be made sift-proof and cargo spaces thoroughly cleaned. Contamination of cement renders it useless as a binding agent.
CEMENT CLINKERS		0.61 TO 0.84	Unground cement Size : 0 mm to 40 mm Moisture : 0% to 5%
CHAMOTTE		1.50	Burned clay, Shipped in the form of the crushed stone. Used by zinc smelters and in manufacture of firebrick (road metal) Size : up to 10mm Greay
CHROME ORE (CHROMIUM ORE)		0.33 TO 0.45	Ore : Size 6.4 mm to 254mm Hard, compact, granular, crystalline Bluish-black Toxic by dust inhalation Loading and unloading operations should be closely supervised to prevent exposure to dust.
CHROME PELLETS		0.60	Pellets Size : 10mm to 25mm Moisture : up to 2% maximum
CLAY		0.66 to 1.34	Powdery to 100mm Moisture : up to 18% Odourless Whitish to beige
COKE (coal origin)		1.25 to 2.93	Used for furnace work asd as a fuel From lines up to 120mm Moisture : 5% to 20%
COLEMANITE		0.61	A natural hydrated calcium borate. Used in boric acid and sodium borate. Fine to large lumps : 300 mm Moisture : approximately 7% Light grey appearance similar to clay
COPPER GRANUELS		0.22 to 0.25	Spherical pebbles : fines up to 10mm with cinkers up to 50mm 75% copper with lead, tin zinc, traces of others Moisture : 1.5% approximately Odourless Dry, light greay, Wet; dark green

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
COPPER MATTE		0.25 to 0.35	Crude black copper ore Small metallic round stones or pellets Size 3mm to 25mm 75% copper : 25% impurities Moisture : none Odourless Metallic black
CRYOLITE		0.70	A Fluoride of sodium and aluminum used in production of aluminum and for ceramic galzes. Pellets: 6.4mm to 12.7mm long Slightly pungent odour Grey Prolonged contact may cause serious damage to the skin and nervous system.
DIAMMONIUM PHOSPHATE	30^O	1.20	Ferlilizer Diameter : 2.54 mm Grey Slightly pungent odour
DOLOMITE		0.56 TO 0.65	A carbonate of calcium and magnesium. Used for refractory purposed, road construction and as a fertilizer compound. Size : 0.1mm to 19.00 mm Moisture : none Odourless Off-White, brown tones Note : DOLOMITE may sometimes, incorrectly, be used to describe a material consisting of the oxides of calcium and magnesium (dolomitic quickline). In this case see "LIME (UNSLAKED) in Enclosure 2
FELSPAR LUMP		0.60	Crystalline minerals consisting of silicates of aluminium with potassium, sodium, calcium and barium. Used in ceramics and enamelling Shipment in different sizes between 0.1mm and 300mm. White or reddish colour.
FERROCHROME		0.18 to 0.26	Raw material of iron mixed with chrome. Shipment in different sizes between 0.1 mm and 300mm. Moisture : none
FERROCHROME exothermic		0.18 to 0.26	An alloy of iron and chromium Warming : no welding or hot work should be permitted in vicinity.
FERROMANGANESE		0.18 to 0.26	Raw material or iron mixed with manganese. Shipment in different sizes between fines and 300 mm

Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
FERROMANGANESE exothermic		0.18 to 0.28	Dry, non-dusty, gravel-type mixture of lumps and powder. An alloy of iron and nickel.
FERLIZERS WITHOUT NITRATES, non – hazardous		0.90 to 1.40	Powder and granular Size : 1 min to 3 mm Moisture : 0% to less than 1% Odourless Greyish/Brown/Beige
FISHMEAL(Anti oxidant treated)		1.7	For properties : See Fishmeal, stabilized (Enclosure B) only permitted for transport if accompanied by a certificate issued by the competent authority of the country of shipment stating that the material has no self-heating properties when transported in bulk.
FLY ASH		1.26	Light finely divided and dusty black powder Diameter 2 mm to 3mm Residual ash from oil or coal fired power stations : Fly ash may sometimes. Incorrectly be used to described calcined pyrites being the residue of chemical industry and containing a percentage of free acid (low pH value) an entry has been included in Enclosure 2 (BC no 003)
GRANULATED SLAG		0.90	Residue of blast furnaces in granulated form. Used by industry Detrimental if loaded too hot Size : 0mm to 5mm Iron : 0.5%
GYPSUM		0.67 TO 0.78	A natural hydrated calcium slphate, insoluble in water. Used in cement, tiles, plaster, plate glass etc. Fine powder to 100mm Average moisture : 1% to 2%
ILMENITE SAND		0.31 to 0.42	Block sand, average size 0.15mm Abrasive Monazite, Zircon and titanium are obtained from ilemenite sand. Material should be kept dry. Moisture : 1% to 2%
IRON ORE		0.29 TO 0.80	Ore Fines and lumps Size : fines to 250mm Dusty Moisture : 0% to 16%

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
IRON ORE PELLETS		0.24 to 0.53	Ore Round pellets Up to 20 mm Moisture : 0% to 2%
IRON PYRITES		0.40	Iron Sulphide. Used in the manufacture of sulphuric acid. 20% fines : 80% lumps Size : 30mm to 150mm
IRONSTONE		0.39	Ore Maximum Size : 75mm Moisture : 1% to 2%
LABRADORITE		0.60	A Lime soda rock form of felspar. Lumps between 50mm and 300mm
LEAD ORE		0.24 TO 0.67	Powdery : Tonic with acids evolves highly toxic vapour.
LIMESTONE		0.67 TO 0.84	A Sedimentary rock containing calcium carbonate Lumps : Size 25mm to 75mm Moisture : up to 4%
MAGNESIA (DEAD- BURNED) (DEADBURNED) MAGNESITE ELECTROFUSED MAGNESIA, MAGNESITE CLINKER, MAGNESIA CLINKER)		0.5	Magnesium oxide, non reactive with water. Used for refractory purposes. Granular, white. For light burned magnesia, Calcined, caustic calcined or unslaked magnesia, see entry in Enclosure 2 Prior to loading. A declaration should be provided by the manufacturer or shipper stating that the material, as offered for shipment, has been sufficiently heat treated and is ready for loading.
MAGNESITE, natural		0.7	Crystalline carbonate of magnesium. Used for refractory purposes Powder/fines to lumps Size : 3mm to 30mm Odorless Yellowish Moisture : none
MANGANESE ORE		0.32 TO 0.70	Ore Fine dust to lumps Size : bellow 5mm to 250mm Moisture : variable up to 15%
MARBLE CHIPS		0.85 TO 1.00	Dry, dusty, white to grey lumps, particles and powder mixed with a small amount of gravel and pebbles. Moisture : none

Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
MILORGANITE		1.53	Heat –dried activated sludge. Very fine granular product Moisture : 3% to 5% Black speckled colour
MONOAMMONIUM PHOSPHATE	38^o	1.21	Can be highly corrosive in presence of moisture. Acidity and impurity such as chloride ions in the absence of calcium ions may increase corrosion. Ammonium phosphates with pH greater than 4.5 are essentially nonOcorrosive. Continuous carriage may have detrimental structural effects over a long period of time.
MURIATE OF POTASH	30^o TO 47^o	0.81 TO 1.12	Fertilizer White crystals. In granular and powder form. Moisture : Variable Lodine Odour.
PEANUTS (IN SHELL)		3.29	Extremely dusty. Moisture : Variable Tan colour
PEBBLES (SEA)		0.59	Round pebbles : 30mm to 110mm Roll very easily; should be overstowed with a layer of sacks
PELLETS (concentrates)		0.47	Concentrate ore which has been polletized. Approximately 10mm Moisture up to 6%
PERLITE ROCK		0.98 TO 1.06	Clay-like and dusty Moisture : 0.5% to 1% Light grey Odourless
PHOSPHATE Defluorinated		1.12	Granular, similar to fine sand Moisture : none Dark grey
PHISPHATE ROCK, calcined		0.64 to 1.26	Mineral, fertilizer Usually in the form of fine ground rock or prills. Extremely dustry Is hydroscopic and will cake and harden if wet. Keep dry.
PHOSPHATE ROCK, uncalcined		0.70	An ore in which phosphorous and oxygen are chemically united. Lumps and powder. Low angle of repose after loading, but once settled not liable to shift Dusty. Moisture : 0% to 2%
PIG IRON		0.30	High-carbon iron Size : 80mm x 90mm x 550 mm

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
POTASH	32^o TO 35^o	0.77 TO 1.03	A carbonate of potassium. Used in fertilizers and soaps. Granular Moisture : Variable to 2% Brown, Pink, white
POTASSIUM SULPHATE	31^o	0.90	Hard crystals or powder Used in aluminium, glass etc Colourless or white.
PUMICE		1.90 to 3.25	Highly porous rock of volcanic origin. Used as an abrasive Powder or lumps Greyish – white
PYRITE (containing copper and iron)		0.33 to 0.50	Iron disulphide containing copper and iron. Used in the manufacture of sulphuric acid. Fines and lumps. Various sizes from fines to 300mm Moisture : 0% to 7%
PYROPHYLLITE		0.50	A natural hydruous aluminium silicate. Used in ceramincs, slate, pencils etc. 75% lumps; 20% rubble; 5% fines Chalk – White
QUARTZ		0.60	Crystalline lumps between 50mm and 300mm
QYARTZITE		0.64	Lumps of 10mm to 130mm Moisture: under 1% White, red, brown.
RASORITE (ANHYDROUS)		0.67 TO 0.78	Uniform granular materials less than 2.36mm in Size; crystalline; yellow-white; little or no dust; abrasive Hygroscopic and will cake if wet.
RUTILE SAND		0.39	Fine-particled material 60% less than 0.15mm. Abrasive. Material is used for hardening steel Shipped dry.
SALT		0.81 TO 1.12	Sizes : grain fines to 12mm Moisture : Variable to 5.5% White
SALT CAKE		0.89 TO 0.95	Impure sodium sulphate. Used in ceramic glazes Granular Moisture : None White
SALT ROCK		0.98 TO 1.06	Small granules. Moisture : 0.02% White

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Annexure – VII

Material	Approx. angle of repose	Approx Stowage factor (m^3/t)	Properties, observations and special requirement
SAND (FOUNDRY, QUARTZ, SILICA, POTTASSIUM, FELSPAR, SODA, FELSPAR)		0.50 TO 0.98	Usually fine particled. Abrasive. Used for a variety of purposes, including glass and steel making.
SCRAP METAL (See also ferrous metal borings, shavings, turnings of cuttings, Enclosure B)		Varies	Various types of scrap metal, engine blocks, etc. (when finely divided, see Enclosure 2)
SEED CAKE		1.39 TO 2.09	Used mainly as animal feed or fertilizers. Requires a certificate from a competent authority or shipper stating that requirements for exemption are met as set out in the entries for SEED CAKE(b) and (c) in Enclosure 2
SODA ASH (dense and light)		1.03 to 1.67	Sodium carbonate Powdery Moisture : 0% to 20% White
STAINLESS STEEL GRINDING DUST		0.42	Caked 75mm to 380mm lumps Moisture : 1% to 3% Brown
STONE CHIPPINGS		0.71	Fines to 25mm
SUGAR (raw, raw brown, refined white)		1.0 to 1.60	Powdery Moisture : 0% to 0.05%
SULPHATE OF POTASH AND MAGNESIUM		0.89 TO 1.00	Granular, light born material Solution in water in almost neutral. May have a slight odour, depending on the process of manufacture. Metting point : 72°C Moisture : 0.02%
SUPERPHOSPHATE		0.84 TO 1.00	A FERTILIZER COMPOSED OF PHOSPHATE TREATED WITH SULPHURIC ACID. Granular, fines and powdery, up to 0.15mm diameter in size. Moisture : 0% to 7% Greyish white

By order and in the name of the Governor of Gujarat,

B.K.SINHA
Additional Chief Secretary to Government

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar 21st July, 2011.

INLAND VESSELS ACT, 1917.

NO. G/ PT/42/2011/GMB/102000/CS-8/GH-1 :- In exercise of the powers conferred by the sub section 4 of section 9 of the Inland Vessels Act, 1917, (1 of 1917) the Government of Gujarat, hereb delegates to the Vice -Chairman and Chief Executive Officer, Gujarat Maritime Board, all the functio assigned to State Government under section 9 of the said Act, except granting of a certificate of survey by t survey or who made the declaration of survey under section 7 of the said Act.

By order and in the name of the Governor of Gujar

D. V. ACHARYA,
Deputy Secretary to Government.

Government Central Press , Gandhinagar.

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PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar 21st July, 2011.

INLAND VESSELS ACT, 1917.

No. G/PT/43/2011/GMB/102000/CS-8/GH-1: In exercise of the powers conferred by section 19B of the Inland Vessels Act, 1917, (1 of 1917) the Government of Gujarat, hereby declares the Ports specified in column (2) of the table below, to be the places of registry and appoints the Officers specified against the ports in column (3) thereof, respectively to be the registering authorities.

TABLE

Sr. No.	Name of the Port	Registering Authority
(1)	(2)	(3)
1	Magdalla (Surat) group of Ports	Port Officer Magdalla,
2	Bharuch group of Ports	Port Officer Bharuch
3	Bhavnagar group of Ports	Port Officer Bhavnagar
4	Jafrabad group of Ports	Port Officer Jafrabad
5	Veraval group of Ports	Port Officer Veraval
6	Porbandar group of Ports	Port Officer Porbandar
7	Okha group of Ports	Port Officer Okha
8	Jamnagar group of Ports	Port Officer Jamnagar
9	Navlakhi group of Ports	Port Officer Navlakhi
10	Mandvi group of Ports	Port Officer Mandvi

By order and in the name of the Governor of Gujarat,

D. V. ACHARYA,
Deputy Secretary to Government.

Government Central Press , Gandhinagar.

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PORTS AND TRANSPORT DEPARTMENT

NOTIFICATION

Sachivalaya, Gandhinagar, 21st July, 2011.

INLAND VESSELS ACT, 1917

No. G/PT/44/2011/GMB/102000/CS-8/GH-1: In exercise of the powers conferred by section 20 of the Inland Vessels Act, 1917 (1 of 1917), the Government of Gujarat, hereby appoints, the Marine Engineer (MEO Class - I) and the Chief Nautical Officer (Foreign Going Master), Gujarat Maritime Board, as the examiners for the purpose of examining the qualification of person desirous to obtain a certificate of competency to act as a master or sarang or engineers or engine Drivers, as the case may be, onboard inland mechanically propelled vessels.

By order and in the name of the Governor of Gujarat,

D. V. ACHARYA,

Deputy Secretary to Government.

Government Central Press, Gandhinagar

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PORTS AND TRANSPORT DEPARTMENT

NOTIFICATION

Sachivalaya, Gandhinagar, 21st July, 2011.

INLAND VESSELS ACT, 1917

No. G/PT/45/2011/GMB/102000/CS-8/GH-1: In exercise of the powers conferred by section 4 of the Inland Vessels Act, 1917, (1 of 1917), the Government of Gujarat hereby declares the places as specified in column (2) of the table below, as the places of survey and appoints the officers as specified in column (3) thereof as surveyors for the purposes of the Act, namely:-

TABLE

Sr. No.	Places of Survey	In charge Surveyors
(1)	(2)	(3)
1	Magdalla (Surat) group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)
2	Bharuch group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)
3	Bhavnagar group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)
4	Jafrabad group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)
5	Veraval group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)

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Sr. No.	Places of Survey	In charge Surveyors
(1)	(2)	(3)
6	Porbandar group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)
7	Okha group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)
8	Jamnagar group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)
9	Navlakhi group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)
10	Mandvi group of Ports	Marine Engineer (MEO Class - I) & Master Mariner (Foreign Going Master)

By order and in the name of the Governor of Gujarat,

D. V. ACHARYA,
Deputy Secretary to Government.

Government Central Press, Gandhinagar

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PART IV-A

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LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 26th July, 2011.

PREVENTION OF CORRUPTION ACT, 1988.

No.GK/21/2011/EXC/1091/5861/D (Part-1): In exercise of powers conferred by sub-section (1) of section 3 of the Prevention of Corruption Act, 1988 (49 of 1988), the Government of Gujarat hereby amends the Government Notification, Legal Department No.GK/96/29/SJP/1029/2150-D dated the 23rd August, 1996 and No.GK/11/2004/EXC/1091/5681/D, dated the 30th June, 2004 as follows, namely:-

In the said notification, for the Schedule-II, the following schedule shall be substituted.

Sr. No.	Special Court having Appellate Jurisdiction	Area
1	2	3
1	CBI Court No. I	For the Metropolitan Areas of Ahmedabad City, (cases to be allotted as per odd numbers)
2	CBI Court No. II	For the Metropolitan Areas of Ahmedabad City, (cases to be allotted as per even numbers)
3	CBI Court No. III	For the Judicial District of Surat, Vadodara, Bhavnagar, Banaskantha, Panchmahal, Anand, Ahmedabad (Rural), Jamnagar, Dahod and Patan.
4	CBI Court No. IV	For the Judicial District of Valsad, Rajkot, Gandhinagar, Kachchha, Navsari, Bharuch, Surendranagar, Kheda, Amreli, Porbandar, Mahesana and Narmada.

By order and in the name of the Governor of Gujarat,

M. J. PARASHAR
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

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WOMEN & CHILD DEVELOPMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar 22nd July, 2011.

PROTECTION OF WOMEN FROM DOMESTIC VIOLENCE ACT-2005.

No. GS-(4)11-MHY-102007-1605-A : In exercise of the powers conferred by section 2(t) of the protection of women from Domestic Violence Act 2005 (43 of 2005), The Government of Gujarat is pleased to cancel the recognition as a shelter home for the vikas Vidhalaya Morbi and Shree Kanta Stri Vikas Gruh, Rajkot.

By Order and in the name of the Governor of Gujarat,

DARPANA DHIMMAR,
Deputy Secretary to Government.

Government Central Press , Gandhinagar.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOREST AND ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 28th July, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No. : GVN-2011/(12)/JJM-2011-S.F.5-F .- In exercise of the powers conferred by the section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its application to the State of Gujarat, (hereinafter referred to as "The said Act".) the Government of Gujarat hereby :-

1. (a) Declares that it has been decided to constitute the land in the village of **Vavdi** in **Chotila** Taluka of **Surendranagar** District specified in the schedule appended hereto, as **'RESERVED FORESTS'** and,

 (b) Appoints the Forest Settlement Officer, **Junagadh** (hereinafter referred to as **"The Forest Settlement Officer"** to be the Officer for the purpose of clause (c) of Sub-section (1) of Section-4 and,

2. Appoints the Collector, **Surendranagar** District at **Surendranagar** to hear the appeals from any orders passed by the said Forests Settlement Officer under Section 11,12,15 and 16 of the said Act.

SCHEDULE

Taluka : **Chotila** Dist : **Surendranagar**

Sr. No.	Name of the village	Survey No.	Area H.R.Sq.m.	Boundaries
1	Vavdi	69/1 69/2 69/3	1.73.45 1.87.17 1.87.17	North : S.No. 82 Pt. Forest land. East : S.No. 83 Pt.. South : S.No. 83 Pt. West : S.No. 83 Pt.Forest land 83/13, 68.
		Total	**5.47.79**	

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to Government.

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વન અને પર્યાવરણ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨૮મી જુલાઈ, ૨૦૧૧.

સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ અન્વયે.

ક્રમાંક : ગવન-૨૦૧૧-(૧૨)-જજમ-૨૦૧૧-એસ.એફ.-૫-એફ.- ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ જેનો આમાં હવે પછી "ઉકત અધિનિયમ" તરીકે ઉલ્લેખ કર્યો છે. તેની કલમો (૪) અને (૧૭)ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર આથી.....

(૧) (અ) જાહેર કરે છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ **સુરેન્દ્રનગર** જિલ્લાના **ચોટીલા** તાલુકાના મોજે **વાવડી** ગામની જમીનને "**અનામત જંગલ**" તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે, અને.....

(બ) જંગલ નિયામક અધિકારી (ફોરેસ્ટ સેટલમેન્ટ ઓફીસર) **જુનાગઢને** જેનો આમાં હવે પછી ઉકત '**ફોરેસ્ટ સેટલમેન્ટ ઓફીસર**' તરીકે ઉલ્લેખ કર્યો છે, તેને કલમ-૪ની પેટા કલમ (૧) ની કલમ (ક) ના હેતુઓ સારૂં **અધિકારી** તરીકે નિયુકત કરવામાં આવે છે.

(૨) ઉકત અધિનિયમની કલમો ૧૧,૧૨,૧૫ અને ૧૬ અન્વયે ઉકત ફોરેસ્ટ ઓફીસરે પસાર કરેલ કોઇપણ આદેશો પર અપીલ સાંભળવા, **સુરેન્દ્રનગર** જિલ્લાના કલેક્ટરશ્રીને નિયુકત કરવામાં આવે છે.

અનુસૂચિ

તાલુકો : **ચોટીલા** જિલ્લો : **સુરેન્દ્રનગર**

અ.નં.	ગામનું નામ	સ.નં.	વિસ્તાર હે.આર.ચો.મી.	ચતુ: સીમા
૧	વાવડી	૬૯/૧ ૬૯/૨ ૬૯/૩	૧.૭૩.૪૫ ૧.૮૭.૧૭ ૧.૮૭.૧૭	ઉત્તર : સ.નં. ૮૩ પૈકી જંગલ જમીન પૂર્વ : સ.નં. ૮૩ પૈકી દક્ષિણ : સ.નં. ૮૩ પૈકી પશ્ચિમ : સ.નં. ૮૩ પૈકી જંગલ જમીન, ૮૩/૧૩,૬૮.
		કુલ	૫. ૪૭.૭૯	

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,
સરકારના ઉપસચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOREST AND ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 28th July, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No. : GVN-2011/(13)/JJM-2011-S.F.6-F .- In exercise of the powers conferred by the section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its application to the State of Gujarat, (hereinafter referred to as "The said Act".) the Government of Gujarat hereby :-

1. (a) Declares that it has been decided to constitute the land in the village of **Karadi** in **Sayala** Taluka of **Surendranagar** District specified in the schedule appended hereto, as **'RESERVED FORESTS'** and,

 (b) Appoints the Forest Settlement Officer, **Junagadh** (hereinafter referred to as **"The Forest Settlement Officer"** to be the Officer for the purpose of clause (c) of Sub-section (1) of Section-4 and,

2. Appoints the Collector, **Surendranagar** District at **Surendranagar** to hear the appeals from any orders passed by the said Forests Settlement Officer under Section 11,12,15 and 16 of the said Act.

SCHEDULE

Taluka : **Sayala** Dist : **Surendranagar**

Sr. No.	Name of the village	Survey No.	Area A.G. H.R.Sq.m.	Boundaries
1	Karadi	19/1 Pt.1	1.49.73	North: S.No. 10, 11, 12.
		19/2 Pt.2	1.49.73	East : S.No.10, 11,20.
		19/2 Pt.1	1.49.73	South : S.No. 18,20.
		19/2 Pt.2	0.00.20	West : S.No. 12, 18.
		Total	**5. 00. 20**	

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to Government.

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વન અને પર્યાવરણ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨૮મી જુલાઇ, ૨૦૧૧.

સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ અન્વયે.

ક્રમાંક : ગવન-૨૦૧૧-(૧૩)-જજમ-૨૦૧૧-એસ.એફ.-૬-એફ.- ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ જેનો આમાં હવે પછી "ઉક્ત અધિનિયમ" તરીકે ઉલ્લેખ કર્યો છે. તેની કલમો (૪) અને (૧૭)ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર, આથી.....

(૧) (અ) જાહેર કરે છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ **સુરેન્દ્રનગર** જિલ્લાના **સાયલા** તાલુકાના મોજે **કરાડી** ગામની જમીનને "**અનામત જંગલ**" તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે, અને.....

(બ) જંગલ નિયામક અધિકારી (ફોરેસ્ટ સેટલમેન્ટ ઓફીસર) **જુનાગઢને** જેનો આમાં હવે પછી ઉક્ત '**ફોરેસ્ટ સેટલમેન્ટ ઓફીસર**' તરીકે ઉલ્લેખ કર્યો છે, તેની કલમ-૪ની પેટા કલમ (૧) ની કલમ (ક) ના હેતુઓ સારું **અધિકારી** તરીકે નિયુક્ત કરવામાં આવે છે.

(૨) ઉક્ત અધિનિયમની કલમો ૧૧,૧૨,૧૫ અને ૧૬ અન્વયે ઉક્ત ફોરેસ્ટ ઓફીસરે પસાર કરેલ કોઇપણ આદેશો પર અપીલ સાંભળવા, **સુરેન્દ્રનગર** જિલ્લાના **કલેક્ટરશ્રીને** નિયુક્ત કરવામાં આવે છે.

અનુસૂચિ

તાલુકો : **સાયલા** જિલ્લો : **સુરેન્દ્રનગર**

અ.નં.	ગામનું નામ	સ.નં.	વિસ્તાર હે.આર.ચો.મી.	ચતુઃ સીમા
૧	કરાડી	૧૯/૧ પૈકી ૧ ૧૯/૧ પૈકી ૨ ૧૯/૨ પૈકી ૧ ૧૯/૨ પૈકી ૨	૧.૪૯.૭૩ ૧.૪૯.૭૩ ૧.૪૯.૭૩ ૦.૫૧.૦૧	ઉત્તર : સ.નં. ૧૦, ૧૧, ૧૨. પૂર્વ : સ.નં. ૧૦, ૧૧,૨૦. દક્ષિણ : સ.નં. ૧૮,૨૦. પશ્ચિમ : સ.નં. ૧૨, ૧૮.
		કુલ	૫. ૦૦. ૨૦	

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,
સરકારના ઉપસચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

HEALTH AND FAMILY WELFARE DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 30th July, 2011.

The Pre-Conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994

No. GP-10-PNDT-102008-853-B.1;- In exercise of the power conferred by sub-section-(2) of section 17 of the Pre-Conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 (57 of 1994), the Government of Gujarat hereby amends the Government Notification, Health and Family Welfare Department No.GP-28-PNDT-102008-28-GOI-853-B.1 dated the 30th August, 2008 as follows namely :- In the said Notification, in the Schedule, after the entry at Sr. No. 46 the following entries shall be added namely :-

Sr. No.	Officer	Taluka	District	Area covered for Health Activities by write full form BHO will be consider as an Area for the jurisdiction of Sub-District Appropriate Authority.
47	Block Health Officer, Viramgam	Viramgam	Ahmedabad	Viramgam/Detroj/Mandal
48	Block Health Officer, Sanand	Sanand	Ahmedabad	Sanand
49	Block Health Officer, Dholka	Dholka	Ahmedabad	Dholka
50	Block Health Officer, Bavala	Bavala	Ahmedabad	Bavala
51	Block Health Officer, Dhanduka	Dhanduka	Ahmedabad	Dhanduka/Ranpur/Barvala
52	Block Health Officer, Mahudha	Mahudha	Kheda	Mahudha
53	Block Health Officer, Thasara	Thasara	Kheda	Thasara
54	Block Health Officer, Balasinor	Balasinor	Kheda	Balasinor/Virpur
55	Block Health Officer, Kapadvanj	Kapadvanj	Kheda	Kapadvanj
56	Block Health Officer, Kathalal	Kathalal	Kheda	Kathalal
57	Block Health Officer, Mahemdabad	Mahemdabad	Kheda	Mahemdabad
58	Block Health Officer, Kheda	Kheda	Kheda	Kheda/Matar
59	Block Health Officer, Anklav	Anklav	Anand	Borsad/Anklav
60	Block Health Officer, Khambhat	Khambhat	Anand	Khambhat/Tarapur
61	Block Health Officer, Petlad	Petlad	Anand	Petlad/Sojitra
62	Block Health Officer, Anand	Umreth	Anand	Umreth

Sr. No.	Officer	Taluka	District	Area covered for Health Activities by write full form BHO will be consider as an Area for the jurisdiction of Sub-District Appropriate Authority.
63	Block Health Officer, Patadi	Dasada (Patadi)	Surendranagar	Dasada (Patadi)
64	Block Health Officer, Chotila	Chotila	Surendranagar	Chotila
65	Block Health Officer, Sayla	Sayla	Surendranagar	Sayla/Muli
66	Block Health Officer, Limbdi	Limbdi	Surendranagar	Limbdi/Chuda
67	Block Health Officer, Halvad	Halvad	Surendranagar	Halvad
68	Block Health Officer, Dehgam	Dehgam	Gandhinagar	Dehgam
69	Block Health Officer, Bayad	Bayad	Sabarkantha	Bayad
70	Block Health Officer, Megharaj	Megharaj	Sabarkantha	Megharaj
71	Block Health Officer, Bhiloda	Bhiloda	Sabarkantha	Bhiloda
72	Block Health Officer, Modasa	Modasa	Sabarkantha	Modasa
73	Block Health Officer, Vijaynagar	Vijaynagar	Sabarkantha	Vijaynagar
74	Block Health Officer, Vav	Vav	Banaskantha	Vav
75	Block Health Officer, Tharad	Tharad	Banaskantha	Tharad
76	Block Health Officer, Dhanera	Dhanera	Banaskantha	Dhanera/Dantivada
77	Block Health Officer, Amirgadh	Amirgadh	Banaskantha	Amirgadh
78	Block Health Officer, Danta	Danta	Banaskantha	Danta
79	Block Health Officer, Vadgam	Vadgam	Banaskantha	Vadgam
80	Block Health Officer, Diodar	Diodar	Banaskantha	Diodar/ Bhabhar
81	Block Health Officer, Kankrej	Kankrej	Banaskantha	Kankrej
82	Block Health Officer,Chanasma	Chanasma	Patan	Chanasma/ Harij
83	Block Health Officer, Santalpur	Santalpur	Patan	Santalpur
84	Block Health Officer, Sami	Sami	Patan	Sami
85	Block Health Officer, Sidhpur	Siddhpur	Patan	Siddhpur
86	Block Health Officer, Satlasna	Satlasna	Mehsana	Satlasna/ Kheralu
87	Block Health Officer, Unjha	Unjha	Mehsana	Unjha
88	Block Health Officer, Vadnagar	Vadnagar	Mehsana	Vadnagar
89	Block Health Officer, Savali	Savali	Vadodara	Savali
90	Block Health Officer, Vaghodia	Vaghodia	Vadodara	Vaghodia
91	Block Health Officer, Jetpur-Pavi	Jetpur- Pavi	Vadodara	Jetpur- Pavi
92	Block Health Officer, Chhota-udepur	Chhota-udepur	Vadodara	Chhota-udepur
93	Block Health Officer, Kwant	Kwant	Vadodara	Kwant
94	Block Health Officer, Nasvadi	Nasvadi	Vadodara	Nasvadi
95	Block Health Officer, Sankheda	Sankheda	Vadodara	Sankheda
96	Block Health Officer, Dabhoi	Dabhoi	Vadodara	Dabhoi/ Sinor
97	Block Health Officer, Padra	Padra	Vadodara	Padra
98	Block Health Officer, Karjan	Karjan	Vadodara	Karjan
99	Block Health Officer, Zambusar	Zambusar	Bharuch	Zambusar
100	Block Health Officer, Vagra	Vagra	Bharuch	Vagra/ Aamod
101	Block Health Officer, Zagdia	Zagdia	Bharuch	Zagdia
102	Block Health Officer, Valia	Valia	Bharuch	Valia
103	Block Health Officer, Tilakvada	Tilakvada	Narmada	Tilakvada
104	Block Health Officer, Nadod	Nadod	Narmada	Nadod
105	Block Health Officer,Dediyapada	Dediyapada	Narmada	Dediyapada
106	Block Health Officer, Sagbara	Sagbara	Narmada	Sagbara
107	Block Health Officer, Fatehpura	Fatehpura	Dahod	Fatehpura

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Sr. No.	Officer	Taluka	District	Area covered for Health Activities by write full form BHO will be consider as an Area for the jurisdiction of Sub-District Appropriate Authority.
108	Block Health Officer, Zalod	Zalod	Dahod	Zalod
109	Block Health Officer,Limkheda	Limkheda	Dahod	Limkheda
110	Block Health Officer, Garbada	Garbada	Dahod	Garbada
111	Block Health Officer, Devgadh- Baria	Devgadh-Baria	Dahod	Devgadh- Baria
112	Block Health Officer, Dhanpur	Dhanpur	Dahod	Dhanpur
113	Block Health Officer, Lunavada	Lunavada	Panchmahal	Lunavada/ Khanpur
114	Block Health Officer, Kadana	Kadana	Panchmahal	Kadana
115	Block Health Officer, Santrampur	Santrampur	Panchmahal	Santrampur
116	Block Health Officer, Sahera	Sahera	Panchmahal	Sahera
117	Block Health Officer, Morva handoff	Morva handaff	Panchmahal	Morva handaff
118	Block Health Officer, Kalol	Kalol	Panchmahal	Kalol
119	Block Health Officer, Halol	Halol	Panchmahal	Halol/ Jambughoda
120	Block Health Officer, Ghogbhma	Ghogbhma	Panchmahal	Ghogbhma
121	Block Health Officer, Olpad	Olpad	Surat	Olpad
122	Block Health Officer, Choryasi	Choryasi	Surat	Choryasi
123	Block Health Officer, Palsana	Palsana	Surat	Palsana
124	Block Health Officer, Kamrej	Kamrej	Surat	Kamrej
125	Block Health Officer, Valod	Valod	Surat	Valod
126	Block Health Officer, Mandvi	Mandvi	Surat	Mandvi
127	Block Health Officer, Mangrol	Mangrol	Surat	Mangrol/ Umarpada
128	Block Health Officer, Songadh	Songadh	Surat	Songadh
129	Block Health Officer, Mahuva	Mahuva	Surat	Mahuva
130	Block Health Officer, Nizar	Nizar	Surat	Nizar
131	Block Health Officer, Jalapore	Jalapore	Navsari	Jalapore
132	Block Health Officer, Chikhli	Chikhli	Navsari	Chikhli
133	Block Health Officer, Vasanda	Vasanda	Navsari	Vasanda
134	Block Health Officer, Umargav	Umargam	Valsad	Umargam
135	Block Health Officer,Dharampur	Dharampur	Valsad	Dharampur
136	Block Health Officer, Kaprada	Kaprada	Valsad	Kaprada
137	Block Health Officer, Talaja	Talaja	Bhavnagar	Talaja
138	Block Health Officer, Mahuva	Mahuva	Bhavnagar	Mahuva
139	Block Health Officer, Palitana	Palitana	Bhavnagar	Palitana/ Gariyadhar
140	Block Health Officer, Vallabhipur	Vallabhipur	Bhavnagar	Vallabhipur/ Umarala
141	Block Health Officer, Sihor	Sihor	Bhavnagar	Sihor
142	Block Health Officer, Manavadar	Manavadar	Junaghadh	Manavadar/ Vanthali
143	Block Health Officer, Keshod	Keshod	Junaghadh	Keshod/ Mendarda
144	Block Health Officer, Visavadar	Visavadar	Junaghadh	Visavadar/ Bhesan
145	Block Health Officer, Malia-Hatina	Malia-Hatina	Junaghadh	Malia-Hatina
146	Block Health Officer, Talala	Talala	Junaghadh	Talala
147	Block Health Officer, Veraval	Veraval	Junaghadh	Veraval/ Sutrapada
148	Block Health Officer, Kodinar	Kodinar	Junaghadh	Kodinar
149	Block Health Officer, Una	Una	Junaghadh	Una
150	Block Health Officer, Mamgrol	Mangrol	Junaghadh	Mangrol
151	Block Health Officer, Dhari	Dhari	Amreli	Dhari/ Khambha

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Sr. No.	Officer	Taluka	District	Area covered for Health Activities by write full form BHO will be consider as an Area for the jurisdiction of Sub-District Appropriate Authority.
152	Block Health Officer, Lathi	Lathi	Amreli	Lathi/ Lilia
153	Block Health Officer, Jafrabad	Jafrabad	Amreli	Jafrabad/ Rajula
154	Block Health Officer, Savarkundla	Savarkundla	Amreli	Savarkundla
155	Block Health Officer, Babara	Babara	Amreli	Babara
156	Block Health Officer, Porbandar	Porbandar	Porbandar	Porbandar
157	Block Health Officer, Kutiyana	Kutiyana	Porbandar	Kutiyana/ Ranavav
158	Block Health Officer, Malia-Miyana	Malia-Miyana	Rajkot	Malia-Miyana/ Tankara
159	Block Health Officer, Morbi	Morbi	Rajkot	Morbi/ Wankaner
160	Block Health Officer, Dhoraji	Dhoraji	Rajkot	Dhoraji/ Upleta
161	Block Health Officer, Okhamandal	Okhamandal	Jamnagar	Okhamandal Jam-Kalyanpur
162	Block Health Officer, Jam-Khambhaliya	Khambhaliya	Jamnagar	Khambhaliya
163	Block Health Officer, Jodia	Dhrol	Jamnagar	Dhrol/Jodia
164	Block Health Officer, Kalavad	Kalavad	Jamnagar	Kalavad
165	Block Health Officer, Lalpur	Lalpur	Jamnagar	Lalpur/ Bhanvad
166	Block Health Officer, Jamjodhpur	Jamjodhpur	Jamnagar	Jamjodhpur
167	Block Health Officer, Bhachau	Bhachau	Kutchh	Bhachau
168	Block Health Officer, Rapar	Rapar	Kutchh	Rapar
169	Block Health Officer, Nakhatrana	Nakhatrana	Kutchh	Nakhatrana
170	Block Health Officer, Mandvi	Mandvi	Kutchh	Mandvi/ Mundra
171	Block Health Officer, Abdasa	Abdasa	Kutchh	Abdasa/ Lakhapat

By order and in the name of the Governor of Gujarat,

K. L. KHANT,
Under Secretary to Government.

Government Central Press, Gandhinagar.

Extra No. 84 REGISTERED No. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FORESTS & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 28th June, 2011.

No. GVN (14)/Env-10-2008-2100 - E -Whereas plastic carry bags cause short term and long term environmental damage and health hazard;

And whereas Article 48-A of the Constitution of India, inter alia envisages that the State shall endeavor to protect and improve the environment;

And whereas , the Government of Gujarat is of the opinion that as the Plastic bags are not biodegradable , the use of plastic carry bags is causing grave injury and is detrimental to the environment and animal health as plastics, when burnt, produce harmful gases which are injurious to the living beings;

Whereas, it is observed that the plastic carry bags find their way in to rivers, streams, lakes and sea and also clog water ways, sewers, drainage lines etc. thereby causing problems of spillage ;

Whereas it is also observed that plastic bags become waste on the road side , on the trees and end up as spoiling landscape, soil etc. and the chemicals used for coloring plastic bags are injurious to health;

Whereas Plastic bags may cause death of animals when they eat the plastic bags containing food items.

Whereas Gandhinagar is the capital of the Gujarat State and it is one of the most beautiful & Green cities of India and recently District Collector, Gandhinagar & Administrator of Gandhinagar Municipal Corporation passed a resolution to make Gandhinagar city as Plastic Free City;

Whereas Gandhinagar is also declared as Clean, Green & Solar City; by the State Government.

Whereas with a view to address the said environmental problem and to make Gandhinagar City free from Plastic, the State Government has decided to declare the entire area of the Gandhinagar City, as " Plastic Carry Bag Free Area ";

And whereas , a draft notification No. GVN(6)/Env-10-2008-2100-E dated 11.03.2011, in exercise of the powers conferred by section 5 of the Environment (Protection) Act, 1986 [Central Act No. 29 of 1986), delegated to the State Government by the Government of India, Ministry of Environment & Forests (Department of Environment, Forests and Wildlife), by its notification No. S.0.152 (E) dated 10.2.1988, issued under section 23 of the said Act, read with rule 4 of the Environment (Protection) Rules, 1986, was published for information of all persons likely to be affected thereby and inviting objections/suggestions within period of thirty days

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And whereas, the objections/suggestions received within the said period have been duly considered by the State Government.

Now therefore, in exercise of the powers conferred by Section 5 of the Environment (Protection] Act, 1986 (Central Act No. 29 of 1986] delegated to the State Government of Gujarat by the Government of India. Ministry of Environment & Forests (Department of Environment, Forests and Wildlife], by it's Notification No. S.O. 152 (E) dated 10.2.1988 issued under section 23 of the said Act, the State Government hereby, directs that

" No person including a shopkeeper, a vendor, a wholesaler, a retailer, a trader, a hawker or a lariwala etc. shall use plastic carry bags for supply of goods, and further directs that no person shall manufacture, store, bring from other Cities, States, import, sell or transport plastic carry bags in Gandhinagar City with effect from 01st August 2011."

Explanation:

1. For the purpose of this Notification the carry bags shall have the same meaning as defined in Plastics Waste (Management & Handling) Rules, 2011. The containers used for packaging food materials; milk and raising plants in the nurseries are exempted from the preview of this notification. 2. Plastic Containers being used as partly filled and tied with thread or rope or stapled comes under the definition of Carry Bags and hence are banned. 3. Only sealed plastic packages filled fully with commodities are allowed but loose plastic containers found at the shops or setting points will be treated as plastic carry bags & therefore are banned.

As per the rule 4 (b) of the Plastics Waste [Management & Handling] Rules, 2011, for enforcement of the provisions of these rules relating to the use, collection, segregation, transportation and disposal of post-consumer plastic waste shall be the Gandhinagar Municipal Corporation.

The State Government hereby further directs that the following officers shall implement these directions and file complaints under section 19 of the Environment (Protection) Act, 1986 using the powers delegated to them by the Ministry of Environment & Forest, Government of India, vide Notification No.S.O, 394 (E) dated 16.4.1987

1. District Collector, Gandhinagar.
2. Regional Officer, Gujarat Pollution Control Board, Gandhinagar.

By Order and in the name of the Governor of Gujarat,

N. K. PATEL,

Deputy Secretary (Environment)
Forests & Environment Department.

Government Central Press, Gandhinagar.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 16th August, 2011.

Commissions of Inquiry Act, 1952.

No. : GK/22/2011/COI/102011/50/A : WHEREAS it has come to the notice of the Government of Gujarat and which has also been published in different news papers that the Leader of Opposition in the Gujarat Legislative Assembly, Shri Shaktisinh Gohil and President, Gujarat Pradesh Congress Committee, Shri Arjunbhai Modhwadia have jointly given a representation dated 3.6.2011 to Her Excellency the President of India wherein 17 allegations with regard to the matters contained in the Annexure appended to this Notification, against the functioning and so-called malpractices of the Government of Gujarat have been made;

AND WHEREAS, the Government of Gujarat is of the opinion that it is necessary in the public interest that the people of Gujarat must know whether there is any substance in the allegations, particularly at the time when a strong public opinion is building across the country against corruption in public life;

AND WHEREAS, the Government of Gujarat is also of the opinion that it is necessary to bring to the knowledge of the people of Gujarat the factual position obtaining on each of the allegations referred to above;

AND WHEREAS, the Government of Gujarat is also of the opinion that the matter is of great public importance'

AND WHEREAS, the Government of Gujarat is further of the opinion that an enquiry should be held into the aforesaid allegations;

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NOW, THEREFORE, in exercise of powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby appoints a Commission of Inquiry consisting of Hon'ble Mr. Justice (Retired), M.B. Shah, former judge of the Supreme Court of India, as the Chairman of the Commission to inquire into and report on and in respect of the aforesaid matters.

2. The Commission shall inquire and report into;

(i) All the matters in relation to which the allegations of corruption, preferential treatment to selected Industrial Houses etc. against the Government of Gujarat have been made in the aforesaid representation presented to the President of India;

(ii) Whether there were any lapses on the part of the Government of Gujarat in so far as the matters relating to these allegations are concerned;

(iii) Any other matter in respect of which any allegation is made which in the opinion of the Commission deserves to be looked into:

(iv) The points mentioned at (i), (ii) and (iii) above, shall be inquired into and interpreted with reference to -

(a) Whether any other major States of India have given any special relaxations to Industrial Houses etc. in land allotment, exemption from or relaxation /deferment in sales tax / commercial tax, stamp duty or in any other matter.

(b) Whether any of the previous Governments of Gujarat State from the year 1980 and beyond gave any special relaxations to Industrial Houses etc. in land allotment, exemption from or relaxation /deferment in sales tax / commercial tax, stamp duty or in any other matter.

3. The Commission should complete its inquiry and submit its report to the State Government on or before 31.3.2012.

4. WHEREAS, the Government of Gujarat is also of the opinion that having regard to the nature of the inquiry to be made by the Commission and other circumstances of the case, the provision of sub-section (2) to (5) of section 5 of the Commission of Inquiry Act, 1952 (60 of 1952) should be made applicable to the Commission hereby appointed, in exercise of the powers conferred by sub section (1) of the said section 5, the Government of Gujarat hereby directs that all the provisions of the said sub-sections (2) to (5) shall apply to the said Commission.

By order and in the name of the Governor of Gujarat,

K. M. LALA,
Deputy Secretary to Government.

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Annexure

1. Land allotment at meagre rate to industrialists in Capital Gandhinagar.
2. Rs.33000 crores concession to Tata Nano Car Project.
3. Land allotment to Adani Group for Mundra Port and Mundra Special Economic Zone.
4. Allotment of prime land of Navsari Agricultural University without auction for Five-Star Hotel to M/s Chhatrala (India) Hotel Group Ltd.
5. Illegal allotment and construction of Costal Regulation Zone (CRZ) and Forest Land by Essar Group.
6. Huge land allotment for Salt Chemicals near Pakistan border to the Companies said to be related to Venkaiya Naidu (BJP Leader).
7. Prime land allotment without auction to Bharat Hotel Limited on Sarkhej-Gandhinagar Highway in Ahmedabad.
8. Land allotment to various industries / industrialists for setting up of industrial units neat major cities.
9. Prime land allotment with throwaway rate without auction to L&T at Hazira Surat.
10. Cattle Feed Fraud.
11. Scam in Nutrition Extruded Fortified Blended Food (EFBF) to Anganwadi centers in the State.
12. Gujarat State Petroleum Corporation.
13. Utilization of private luxury Jet Aircraft and Helicopter for Chief Minister at the cost of beneficiary industries.
14. Sujlam-Suflam Yojna scam of Water Resources.
15. 36.25 acres farm land in Kutch District purchase and sale by M/s Indigold Refinery Limited, Mumbai by direct intervention of CMO and Hon'ble Minister (Revenue) violating all laws.

(From among the 17 allegations referred to in the representation dated 3.6.2011 given by the Leader of Opposition in Gujarat Legislative Assembly and the President, Gujarat Pradesh Congress Committee, to the Hon'ble President of India, two allegations pertaining to "Allotment of Fishing rights in various Dams without auction" and " Swan Energy" being subjudice, they have been kept out of the ambit of Inquiry Commission.).

Government Central Press, Gandhinagar.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

PORTS AND TRANSPORT DEPARTMENT

NOTIFICATION

Sachivalaya, Gandhinagar, 25th August, 2011.

MOTOR VEHICLES ACT, 1988

No. GG/52/2011/STC/l 0/2008/1479/GH :- In Exercise of the Powers Conferred by Sub- Section (2) of Section 89 of the Motor Vehicles Act, 1988, (Act 59 of 1988) and in Supersession of Government Notification, Ports and Transport Department No.GG/27/2008/ STC/102008/1479/GH. Date the 9th July 2008 the Government of Gujarat here by Constitutes for the State of Gujarat, the State Transport Appellate Tribunal which shall Consist of Shri K.I.Kachhia, Honourable Judge City Civil and Sessions Court, Ahmedabad and also hereby appoints Shri M.P.Sheth, Honourable Judge City Civil and Sessions Court, Ahmedabad to work as State Transport Appellate Tribunal in the absence of Shri K.I. Kachhia on leave or otherwise,

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,

Deputy Secretary to Government of Gujarat.

Government Central Press, Gandhinagar

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 29th August, 2011.

COMMISSION OF INQUIRY ACT, 1952.

No. GK/23/2011/COI/102009/205/A .- WHEREAS the Government has, under Government Notification, Legal Department No. GK/11/2009/COI/102009/205/A, dated the 8th July, 2009, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), to inquire into the matters mentioned in paragraph 2 of the said notification;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 30th November, 2009 as provided in the aforesaid Notification of 8th July, 2009, and thereafter within the time limit extended till 31st August, 2011, as provided in the different subsequent Notifications;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the Sate Government;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 30th September, 2011;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No. GK/11/2009/COI/102009/205/A, dated the 8th July, 2009, as follows, namely :-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 31st August, 2011" the words, figures and letters "on or before the 30th September, 2011" shall be substituted.

By order and in the name of the Governor of Gujarat,

N. N. NAYAK,

Joint Secretary to Government.

Government Central Press, Gandhinagar

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOREST & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 2nd September, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No. : GVN/2011/(16)/JJM/2011/S.F.9-F : In exercise of the powers conferred by the section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its applications to the State of Gujarat, (hereinafter referred to as "The said Act".) the Government of Gujarat hereby :-

1 (a) Declares that it has been decided to constitute the land in the village of **Zinzuvada** in **Dasada** Taluka of **Surendranagar** District specified in the schedule appended hereto, as **'RESERVED FORESTS'**, and

(b) Appoints the Forest Settlement Officer, **Junagadh** (hereinafter referred to as **"The Forest Settlement Officer"** to be the Officer for the purpose of clause (c) of Sub-section (1) of Section-4 and,

2. Appoints the Collector, **Surendranagar** District at **Surendranagar** to hear the appeals from any orders passed by the said Forests Settlement Officer under Section 11, 12, 15 and 16 of the said Act.

SCHEDULE

District : **Surendranagar** Taluka : **Chotila**

Sr. No.	Name of the Village	Survey No.	Area H.R.Sq.m.	Boundaries
1	Zinzuvada	640	2-12-46	North : West Land East : West Land South : West Land, S.No. 639 West : West Land

Sr. No.	Name of the Village	Survey No.	Area H.R.Sq.m.	Boundaries
		644/Pt.-1 644/Pt.-2	2-84-29 2-83-28	North : S.No. 641, 642 East : S.No. 645 South : S.No. 648 West : S.No. 643
		646	2-22-58	North : West Land East : West Land South : West Land West : S.No. 647, West Land,
		649/3	3-12-62	North : S.No. 648 East : S.No. 639, West Land South : S.No. 649/4 West : S.No. 649/1
		649/4	2-83-29	North : S.No. 649/3 East : West Land South : S.No. 683 West : S.No. 649/2
		650	2-64-22	North : S.No. 648 East : S.No. 649/1, 649/2, South : S.No. 681, 682 West : S.No. 651
		658	4-54-26	North : S.No. 659 East : S.No. 657 South : S.No. 655, 656 West : S.No. 665
		662	2-79-23	North : West Land East : S.No. 663 South : West Land West : S.No. 661
		667/1 667/2 667/3 667/4	2-02-34 2-02-34 2-28-67 2-02-34	North : S. No. 668 East : S.No. 666 South : West Land West : West Land
		672/1	6-41-43	North : S. No. 666,665 East : S.No. 655, 654 South : 672/2 West : West Land

Sr. No.	Name of the Village	Survey No.	Area H.R.Sq.m.	Boundaries
		673/2	2-61-02	North : S. No. 654 East : West Land South : S.No. 674/1 West : S.No. 673/1
		674/1	5-25-21	North : S. No. 673/1, 673/2 East : West Land South : Road, S.No. 674/2, 675 West : Road, S. No. 674/2
		676	1-75-03	North : S. No. 675 East : West Land South : West Land West : West Land
		678/2	4-04-69	North : S. No. 678/1, 680/2 East : S. No. 687 South : West Land West : West Land
		681	3-37-91	North : S. No. 651, 650 East : S. No. 682 South : S. No. 687 West : S. No. 680/1, 680/2
		690/1 690/2	0-86-00 0-84-98	North : S. No. 689 East : S. No. 714, West Land South : S. No. 691, 692 West : S. No. 688
		693	8-63-00	North : S. No. 691, 692, 712 East : S. No. 709 South : S. No. 694 West : West Land
		Total :	69-11-19	

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to Government.

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વન અને પર્યાવરણ વિભાગ,

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨જી સપ્ટેમ્બર, ૨૦૧૧

સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ અન્વયે.

ક્રમાંક : ગવન-૨૦૧૧-(૧૬)-જજમ-૨૦૧૧-એસ.એફ.-૯-એફ .- ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ જેનો આમાં હવે પછી ''ઉક્ત અધિનિયમ'' તરીકે ઉલ્લેખ કર્યો છે તેની કલમો (૪) અને (૧૭) ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર, આથી,.....

(૧) (અ) જાહેર કરે છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ **સુરેન્દ્રનગર** જિલ્લાના **દસાડા** તાલુકાના મોજે. **ઝીંઝુવાડા** ગામની જમીનને **'અનામત જંગલ'** તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે. અને.....

(બ) જંગલ નિયામક અધિકારી **(ફોરેસ્ટ સેટલમેન્ટ ઓફીસર) જુનાગઢને** જેનો આમાં હવે પછી ઉક્ત **'ફોરેસ્ટ સેટલમેન્ટ ઓફીસર'** તરીકે ઉલ્લેખ કર્યો છે. તેને કલમ-૪ની પેટા-કલમ (૧) ની કલમ (ક) ના હેતુઓ સારું અધિકારી તરીકે નિયુક્ત કરવામાં આવે છે.

(૨) ઉક્ત અધિનિયમની કલમો ૧૧, ૧૨, ૧૫ અને ૧૬ અન્વયે ઉક્ત ફોરેસ્ટ ઓફિસરે પસાર કરેલ કોઈપણ આદેશો પર અપીલ સાંભળવા **સુરેન્દ્રનગર** જિલ્લાના **કલેક્ટરશ્રીને** નિયુક્ત કરવામાં આવે છે.

અનુસૂચિ

જિલ્લો : સુરેન્દ્રનગર **તાલુકો : દસાડા**

અ.નં	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે.આર.ચો.મી.	ચર્તુ:સીમા
૧	ઝીંઝુવાડા	૬૪૦	૨-૧૨-૪૬	ઉત્તર : પડતર જમીન પૂર્વ : પડતર જમીન દક્ષિણ : સ.નં. ૬૩૯, પડતર જમીન પશ્ચિમ : પડતર જમીન
		૬૪૪/પૈકી-૧ ૬૪૪/પૈકી-૨	૨-૮૪-૨૯ ૨-૮૩-૨૮	ઉત્તર : સ.નં. ૬૪૧, ૬૪૨ પૂર્વ : સ.નં. ૬૪૫ દક્ષિણ : સ.નં. ૬૪૮ પશ્ચિમ : સ.નં. ૬૪૩
		૬૪૬	૨-૨૨-૫૮	ઉત્તર : પડતર જમીન પૂર્વ : પડતર જમીન દક્ષિણ : પડતર જમીન પશ્ચિમ : પડતર જમીન, સ.નં. ૬૪૭
		૬૪૯/૩	૩-૧૨-૬૨	ઉત્તર : સ. નં. ૬૪૮ પૂર્વ : સ. નં. ૬૪૭, પડતર જમીન દક્ષિણ : સ. નં. ૬૪૯/૪ પશ્ચિમ : સ. નં. ૬૪૯/૧

અ.નં	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે.આર.ચો.મી.	ચર્તુઃસીમા
		૬૪૯/૪	૨-૮૩-૨૯	ઉત્તર : સ. નં. ૬૪૯/૩ પૂર્વ : પડતર જમીન દક્ષિણ : પડતર જમીન, સ. નં. ૬૮૩ પશ્ચિમ : સ. નં. ૬૪૯/૨
		૬૫૦	૩-૬૪-૨૨	ઉત્તર : સ. નં. ૬૪૮ પૂર્વ : ૬૪૯/૧, ૬૪૯/૨ દક્ષિણ : સ. નં. ૬૮૨, ૬૮૧ પશ્ચિમ : સ. નં. ૬૫૧
		૬૫૮	૪-૫૪-૨૬	ઉત્તર : સ. નં. ૬૫૯ પૂર્વ : સ. નં. ૬૫૭ દક્ષિણ : સ. નં. ૬૫૫,૬૫૬ પશ્ચિમ : સ. નં. ૬૬૫
		૬૬૨	૨-૭૯-૨૩	ઉત્તર : પડતર જમીન પૂર્વ : સ. નં. ૬૬૩ દક્ષિણ : પડતર જમીન પશ્ચિમ : સ. નં. ૬૬૧
		૬૬૭/૧ ૬૬૭/૨ ૬૬૭/૩ ૬૬૭/૪	૨-૦૨-૩૪ ૨-૦૨-૩૪ ૨-૨૮-૬૭ ૨-૦૨-૩૪	ઉત્તર : સ. નં. ૬૬૮ પૂર્વ : સ. નં. ૬૬૬ દક્ષિણ : પડતર જમીન પશ્ચિમ : પડતર જમીન
		૬૭૨/૧	૬-૪૧-૪૩	ઉત્તર : સ. નં. ૬૬૫, ૬૬૬ પૂર્વ : સ. નં. ૬૫૪, ૬૫૫ દક્ષિણ : સ. નં. ૬૭૨/૨ પશ્ચિમ : પડતર જમીન
		૬૭૩/૨	૨-૬૧-૦૨	ઉત્તર : સ. નં. ૬૫૪ પૂર્વ : પડતર જમીન દક્ષિણ : સ. નં. ૬૭૪/૧ પશ્ચિમ : સ. નં. ૬૭૩/૧
		૬૭૪/૧	૫-૨૫-૨૧	ઉત્તર : સ. નં. ૬૭૩/૧, ૬૭૩/૨ પૂર્વ : પડતર જમીન દક્ષિણ : સ. નં. ૬૭૪/૨, ૬૭૫ પશ્ચિમ : સ. નં. ૬૭૪/૨
		૬૭૬	૧-૭૫-૦૩	ઉત્તર : સ. નં. ૬૫૫ પૂર્વ : પડતર જમીન દક્ષિણ : પડતર જમીન પશ્ચિમ : પડતર જમીન

અ.નં	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે.આર.ચો.મી.	ચર્તુઃસીમા
		૬૭૮/૨	૪-૦૪-૬૯	ઉત્તર : સ. નં. ૬૭૮/૧, ૬૮૦/૨ પૂર્વ : સ. નં. ૬૮૭ દક્ષિણ : પડતર જમીન પ[illegible]મ : પડતર જમીન
		૬૮૧	૩-૩૭-૯૧	ઉત્તર : સ. નં. ૬૫૧, ૬૫૦ પૂર્વ : સ. નં. ૬૮૨ દક્ષિણ : સ.નં. ૬૮૭ પ[illegible]મ : સ.નં. ૬૮૦/૧, ૬૮૦/૨
		૬૯૦/૧ ૬૯૦/૨	૦-૮૬-૦૦ ૦-૮૪-૯૮	ઉત્તર : સ. નં. ૬૮૯ પૂર્વ : સ. નં. ૭૧૪, પડતર જમીન દક્ષિણ : સ.નં. ૬૯૧, ૬૯૨ પ[illegible]મ : સ.નં. ૬૮૮
		૬૯૩	૮-૬૩-૦૦	ઉત્તર : સ. નં. ૬૯૧, ૬૯૨, ૭૧૨ પૂર્વ : સ. નં. ૭૦૯, દક્ષિણ : સ.નં. ૬૯૪, પ[illegible]મ : પડતર જમીન
		કુલ :	૬૯-૧૧-૧૯	

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,
સરકારના ઉપસચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

Extra No. 89 REGISTERED NO. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOREST & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 2nd September, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No. : GVN/2011/(17)/JJM/2011/S.F.11-F : In exercise of the powers conferred by the section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its application to the State of Gujarat, (hereinafter referred to as "The said Act".) the Government of Gujarat hereby :-

1 (a) Declares that it has been decided to constitute the land in the village of **Moti Matli** in **Kalavad** Taluka of **Jamnagar** District specified in the schedule appended hereto, as **'RESERVED FORESTS'**, and,

(b) Appoints the Forest Settlement Officer, **Jamnagar** (hereinafter referred to as **"The Forest Settlement Officer"** to be the Officer for the purpose of clause (c) of Sub-section (1) of Section-4 and,

2. Appoints the Collector, **Jamnagar** District at **Jamnagar** to hear the appeals from any orders passed by the said Forests Settlement Officer under Section 11, 12, 15 and 16 of the said Act.

SCHEDULE

Taluka : **Kalavad** District : **Jamnagar**

Sr. No.	Name of the Village	Survey No.	Area H.R.Sq.m.	Boundries
1	Moti Matli	316 Pt. Part-I	07-40-00	North : S.No. 316/1, Gauchar Land East : Area of S.No. 316 Pt. South : Area of S.No. 316 Pt. West : Area of S.No. 316 Pt.
		316 Pt. Part-II	17-60-00	North : Area of S.No. 316 Pt.East : Area of S.No. 316 Pt. South : Area of S.No. 316 Pt. West : Area of S.No. 316 Pt.
		Total :	25.00.00	

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to the Government.

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વન અને પર્યાવરણ વિભાગ,

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨જી સપ્ટેમ્બર, ૨૦૧૧

સને ૧૯૨૭ના ભારતની જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ અન્વયે.

ક્રમાંક : ગવન-૨૦૧૧-(૧૭)-જજમ-એસ.એફ.-૧૧-એફ .- ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ જેનો આમાં હવે પછી "ઉક્ત અધિનિયમ" તરીકે ઉલ્લેખ કર્યો છે તેની કલમો (૪) અને (૧૭) ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર, આથી,.....

(૧) (અ) જાહેર કરે છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ જામનગર જિલ્લાના કાલાવાડ તાલુકાના મોજે. મોટી માટલી ગામની જમીનને 'અનામત જંગલ' તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે. અને.....

(બ) જંગલ નિયામક અધિકારી (ફોરેસ્ટ સેટલમેન્ટ ઓફીસર) જુનાગઢને જેનો આમાં હવે પછી ઉક્ત 'ફોરેસ્ટ સેટલમેન્ટ ઓફીસર' તરીકે ઉલ્લેખ કર્યો છે. તેને કલમ-૪ની પેટા-કલમ (૧) ની કલમ (ક) ના હેતુઓ સારું અધિકારી તરીકે નિયુક્તિ કરવામાં આવે છે.

(૨) ઉક્ત અધિનિયમની કલમો ૧૧, ૧૨, ૧૫ અને ૧૬ અન્વયે ઉક્ત ફોરેસ્ટ ઓફિસરે પસાર કરેલ કોઈપણ આદેશો પર અપીલ સાંભળવા જામનગર જિલ્લાના કલેક્ટરશ્રીને નિયુક્ત કરવામાં આવે છે.

અનુસૂચિ

તાલુકો : કાલાવડ જિલ્લો : જામનગર

અ.નં	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે.આર.ચો.મી.	વિસ્તાર
૧	મોટી માટલી	૩૧૬ પૈકી ભાગ-૧	૦૭-૪૦-૦૦	ઉત્તર : સ.નં. ૩૧૬/૧, ગૌચરની જમીન પૂર્વ : સ.નં. ૩૧૬ પૈકીનો વિસ્તાર દક્ષિણ : સ.નં. ૩૧૬ પૈકીનો વિસ્તાર પશ્ચિમ : સ.નં. ૩૧૬ પૈકીનો વિસ્તાર
		૩૧૬ પૈકી ભાગ-૨	૧૭-૬૦-૦૦	ઉત્તર : સ.નં. ૩૧૬ પૈકીનો વિસ્તાર પૂર્વ : સ.નં. ૩૧૬ પૈકીનો વિસ્તાર દક્ષિણ : સ.નં. ૩૧૬ પૈકીનો વિસ્તાર પશ્ચિમ : સ.નં. ૩૧૬ પૈકીનો વિસ્તાર
		કુલ :	૨૫.૦૦.૦૦	

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,
સરકારના ઉપસચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

HEALTH AND FAMILY WELFARE DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 2nd September, 2011

THE PRE CONCEPTION AND PRE-NATAL DIAGNOSTIC TECHNIQUES (PROHIBITION OF SEX SELECTION) ACT, 1994.

No.GP-15-PNDT-102011-933-B.I:- In exercise of the powers conferred by sub- section (2) of section 17 of the Pre-Conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 (57 of 1994), the Government of Gujarat hereby appoints the officers specified in column 3 of the Schedule annexed here to be the Appropriate Authorities at Sub-District level for the areas specified in column 4, thereof respectively for the purposes of the said Act, having regard to the intensity of the problem of the Pre-Conception and Pre-natal sex determination leading to female feticide.

SCHEDULE

Sr. No.	District	Officer	Area Revenue jurisdiction under Prant Officer shall be Considered relevant jurisdiction for Appropriate Authority at Sub-district level
1	2	3	4
1	Ahmedabad	Prant Officer, Sabarmati	Sabarmati, Gathlodiya, Asarva, Naroda & Dascroi (Bhag)
2		Prant Officer, Vejalpur	Vejalpur, Dascroi (Bhag), Sanand (Bhag), Sanand
3		Prant Officer, Maninagar	Maninagar, Vatva, Nikol, Bapunagar, Thakarbapa Nagar & Dascroi (Bhag)
4		Prant Officer, Navrangpura	Elisbridge, Naranpura, Dariyapur, Kajipur, Danilimda, Jamalpur, Khadia, Dascroi (Bhag)
5		Prant Officer, Viramgam	Viramgam, Mandal, Detroj
6		Prant Officer, Dholka	Bavla, Dholka, Sanand
7		Prant Officer, Dhanduka	Dhanduka, Barvada, Ranpur

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Sr. No.	District	Officer	Area Revenue jurisdiction under Prant Officer shall be Considered relevant jurisdiction for Appropriate Authority at Sub-district level
1	2	3	4
8	Kheda	Prant Officer, Nadiad	Nadiad, Mahudha
		Prant Officer, Balasinor	Balasinor, Virpur, Thasra
10		Prant/Officer, Kapadvanj	Kapadvanj, Kathlal
11		Prant Officer, Kheda	Kheda, Matar, Mahemadabad
12	Anand	Prant Officer, Anand	Anand(City), Anand(Rural) Umreth
13		Prant Officer, Borsad	Borsad, Anklav
14		Prant Officer, Khambhat	Khambhat, Tararpur
15		Prant Officer, Petlad	Petlad, Sojitra
16	Surendranagar	Prant Officer, Patadi	Patadi
17		Prant Officer, Chotila	Chotila, Muli
18		Prant Officer, Limdi	Limdi, Sayla, Chuda
19		Prant Officer, Vadhvan	Vadhvan, Lakhtar
20		Prant Officer, Dhangdhara	Dhangdhra, Halavad
21	Gandhinagar	Prant Officer, Gandhinagar	Gandhinagar, Dahegam
22		Block Health Officer, Kalol	Kalol, Mansa
23	Sabarkantha	Prant Officer, Pratij	Pratij, Talod
24		Prant Officer, Bayad	Bayad, Dhansura
25		Prant Officer, Modasa	Modasa, Malpur, Megharaj
26		Prant Officer, Idar	Idar, Vadali
27		Prant Officer, Himmatnagar.	Himmatnagar, Bhiloda
28		Prant Officer, Khedbrahma	Khedbrahma, Vijaynagar
29	Banaskantha	Prant Officer, Tharad	Tharad, Vav
30		Prant Officer, Dhanera	Dantivada, Dhanera
31		Prant Officer, Ambaji	Ambaji, Amirgadh
32		Prant Officer, Deesa	Deesa, Kankrej
33		Prant Officer, Diodar	Diodar, Bhabhar
34		Prant Officer, Palanpur	Palanpur, Vadgam
35	Patan	Prant Officer, Patan	Patan, Chansma
36		Prant Officer, Radhanpur	Radhanpur, Santalpur
37		Prant Officer, Sami	Harij, Sami
38	Patan	Prant Officer, Siddhpur	Siddhapur
39	Mehsana	Prant Officer, Kherula	Kherula, Vadnagar, Satlasana
40		Prant Officer, Visnagar	Visnagar, Vijapur
41		Prant Officer, Mehsana	Mehsana, Unja
42		Prant Officer, Kadi	Kadi, Becharaji

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Sr. No.	District	Officer	Area Revenue jurisdiction under Prant Officer shall be Considered relevant jurisdiction for Appropriate Authority at Sub-district level
1	2	3	4
43	Vadodara	Prant Officer, Savali	Savali, Vaghodia
44		Prant Officer, Vadodara (City)	Vadodara(City)
45		Prant Officer, Chhota- Udepur	Chhota-Udepur, Pavi-Jetpur, Kavant
46		Prant Officer, Dabhoi	Dabhoi, Sankheda, Nasvadi
47		Prant Officer, Vadodara(Rural)	Vadodara(Rural), Padra
48		Prant Officer, Karjan.	Karjan, Sinor
49	Bharuch	Prant Officer, Bharuch	Bharuch, Vagra
50		Prant Officer, Zambusar	Jambusar, Amod
51		Prant Officer, Ankleshwar	Ankleshwar, Hansot
52		Prant Officer, Zagdia	Zagadia, Valiya
53	Narmada	Prant Officer, Rajpipala	Nandod, Tilakwada
54		Prant Officer, Dediyapada	Dediyapada, Sagbara
55	Dahod	Prant Officer, Zalod	Zalod, Fatepur
56		Prant Officer, Limkheda	Dhanpur, Limkheda
57		Prant Officer, Dahod	Dahod, Garbada
58		Prant Officer, Devagadh- Baria	Devagadh-Baria
59	Panchmahal	Prant Officer, Lunavada	Lunawada, Sahera
60		Prant Officer, Santrampur	Santrampur, Khanpur, Kadana
61		Prant Officer, Godhara	Godhara, Kalol, Morva(Hadaf)
62		Prant Officer, Halol	Halol, Jambugoda, Ghoghamba
63	Surat	Prant Officer, Surat	Surat(City)
64		Prant Officer, Olpad	Olpad, Choryasi
65		Prant Officer, Kamrej	Kamrej, Palsana
66		Prant Officer, Bardoli	Bardoli, Mahuva
67		Prant Officer, Mandvi	Mangrol, Mandvi, Umarpada
68	Tapi	Prant Officer, Vyara	Valod, Vyara, Songadh
69		Prant Officer, Nizar	Nizar, Uchchhal
70	Navsari	Prant Officer, Navsari	Navsari (City), Navsari(Rural), Jalalpor
71		Prant Officer, Chikhali	Chikhali, Gandevi, Vansada
72	Valsad	Prant Officer, Valsad	Valsad, Dharampur,
73		Prant Officer, Pardi	Pardi, Umarpada, Kaprada
74	Bhavnagar	Prant Officer, Bhavnagar	Bhavnagar (City), Bhavnagar(Rural)
75		Prant Officer, Talaja	Talaja
76		Prant Officer, Mahuva	Mahuva
77		Prant Officer, Palitana	Palitana, Gariyadhar
78		Prant Officer, Botad	Botad, Gadhada
79		Prant Officer, Shihor	Shihor, Vallabhipur, Umrada

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Sr. No.	District	Officer	Area Revenue jurisdiction under Prant Officer shall be Considered relevant jurisdiction for Appropriate Authority at Sub-district level
1	2	3	4
80	Junaghadh	Prant Officer, Keshod	Keshod, Mangrol
81		Prant Officer, Junagadh	Junagadh, Vanthali, Manavadar
82		Prant Officer, Visavadar	Visavadar, Bhesan
83		Prant Officer, Mendarda	Mendarda, Maliya-Hatina
84		Prant Officer, Veraval	Veraval, Talala, Sutrapada
85		Prant Officer, Una	Kodinar, Una
86	Amreli	Prant Officer, Dhari	Dhari, Bagsara, Khambha
87		Prant Officer, Rajula	Rajula, Jafrabad
88	Amreli	Prant Officer, Savarkundla	Savarkundla, Liliya
89		Prant Officer, Lathi	Lathi, Babra
90		Prant Officer, Amreli	Amreli, Vadiya
91	Porbandar	Prant Officer, Porbandar	Porbandar
92		Prant Officer, Kutiyana	Kutiyana, Ranavav
93	Rajkot	Prant Officer, Morbi	Morbi, Tankara, Miliyamiyana
94		Prant Officer, Wankaner	Wankaner
95		Prant Officer, Rajkot(City)	Rajkot(City), Rajkot Taluka, Kotda-Sangani
96		Prant Officer, Rajkot (Rural)	Lodhika, Paddhari
97		Prant Officer, Jansdan	Jasdan
98		Prant Officer, Gondal	Gondal, Jetpur
99		Prant Officer, Dhoraji	Dhoraji, Upleta, Jamkandorna
100	Jamnagar	Prant Officer, Dwaraka	Dwarka, Kalyanpur
101		Prant Officer, Khambhaliya	Khambhaliya, Bhanvad
102		Prant Officer, Jamnagar (City)	Jamnagar City
103		Prant Officer, Jamnagar (Rural)	Jamnagar(Rural), Kalavad
104		Prant Officer, Dhrol	Dhrol, Jodiya
105		Prant Officer, Lalpur	Lalpur, Jamjodhpur
106	Kutchh	Prant Officer, Bhuj	Bhuj
107		Prant Officer, Bhachau	Bhachau, Rapar
108		Prant Officer, Anjar	Anjar, Gandhidham
109		Prant Officer, Nakhatrana	Nakhatrana, Lakhpat
110		Prant Officer, Mudra	Mundra, Mandavi
111		Prant Officer, Abdasa at Naliya	Abdasa
112	Dang	Prant Officer, Ahwa	Dang

By order and in the name of the Governor of Gujarat,

R. C. MEENA,
Additional Secretary to Government.

GOVERNMENT CENTRAL PRESS, GANDHINAGAR.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOREST & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 2nd September, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No.GVN-2011-(18)/JJM-2011-S.F.12-F.- In exercise of the powers conferred by the section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its application to the State of Gujarat, (hereinafter referred to as "The said Act") the Government of Gujarat hereby :-

1 (a) Declares that it has been decided to constitute the land in the village of **Mota Vadala** in **Kalavad** Taluka of **Jamnagar** District specified in the schedule appended hereto, as **'RESERVED FORESTS'** and,

(b) Appoints the Forest Settlement Officer, **Jamnagar** (hereinafter referred to as **"The Forest Settlement Officer"** to be the Officer for the purpose of clause (c) of Sub-section (1) of Section- 4 and,

2. Appoints the Collector, **Jamnagar** District at **Jamnagar** to hear the appeals from any orders passed by the said Forests Settlement Officer under Section 11,12,15 and 16 of the said Act.

SCHEDULE

Taluka : Kalavad District : Jamnagar

Sr. No.	Name of the Village	Survey No.	Area H.R.Sqm.	Boundaries
1	Mota Vadala	144	19.14.17	North : Cart Road, S. No.165 East : S.No.165,174,175,176,177. South : S. No. 143/1 West : Cart Road.
		Total	19.14.17	

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to Government.

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વન અને પર્યાવરણ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૨જી સપ્ટેમ્બર, ૨૦૧૧.

સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬મા) અધિનિયમ અન્વયે.

ક્રમાંકઃગવન-૨૦૧૧/(૧૮)/જજમ-૨૦૧૧-એસ-એફ-૧૨-એફ. ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬મા) અધિનિયમ જેનો આમાં હવે પછી ''ઉક્ત અધિનિયમ'' તરીકે ઉલ્લેખ કર્યો છે તેની કલમો (૪) અને (૧૭)ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર, આથી...

(૧) (અ) જાહેર કરે છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ **જામનગર** જિલ્લાના **કાલાવડ** તાલુકાના મોજે : **મોટા વડાળા** ગામની જમીનને **'અનામત જંગલ'** તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે, અને....

(બ) જંગલ નિયામક અધિકારી (ફોરેસ્ટ સેટલમેન્ટ ઓફીસર) **જુનાગઢ**ને જેનો આમાં હવે પછી ઉક્ત **'ફોરેસ્ટ સેટલમેન્ટ ઓફીસર'** તરીકે ઉલ્લેખ કર્યો છે. તેને કલમ-૪ની પેટા કલમ (૧)ની કલમ (ક)ના હેતુઓ સારું **અધિકારી** તરીકે નિયુક્ત કરવામાં આવે છે.

(૨) ઉક્ત અધિનિયમની કલમો ૧૧, ૧૨, ૧૫ અને ૧૬ અન્વયે ઉક્ત ફોરેસ્ટ ઓફીસરે પસાર કરેલ કોઈપણ આદેશો પર અપીલ સાંભળવા **જામનગર** જિલ્લાના **કલેકટરશ્રી**ને નિયુક્ત કરવામાં આવે છે.

અનુસૂચિ

તાલુકો : કાલાવડ જિલ્લો : જામનગર

અ.નં.	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે. આર. ચો.મી.	વિસ્તાર
૧	મોટા વડાળા	૧૪૪	૧૯.૧૪.૧૭	ઉત્તર : ગાડા માર્ગ, સ.નં. ૧૬૫. પૂર્વ : સ.નં. ૧૬૫,૧૭૪,૧૭૫,૧૭૬,૧૭૭. દક્ષિણ : સ.નં. ૧૪૨/૧. પશ્ચિમ : ગાડા માર્ગ.
		કુલ :	૧૯.૧૪.૧૭	

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,
સરકારના ઉપસચિવ

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર

Extra No. 92 REGISTERED No. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 9th September, 2011.

MOTOR VEHICLES ACT, 1988.

No : PT/2011/56/MVR/1095/G. O. I. -39/KH (Part-2) .-In pursuance of the provisions of Rule-9 of Central Motor Vehicles Rules, 1989, the Government of Gujarat hereby amends the Government Notification, Home Department No. G/G/96/204/MVR/1095/G.O.I.-39/KH-(Part-1) dated 24th December 1996.

In the said notification, in the schedule after entry at serial number 20, the following entry shall be added, namely :-

(21)	Jay Shiv Shakti Enterprise, Vadodara	Jagdamba Tobbaco Co., Bharat Baug, N. H. 8, Ranoli Crossing, P. O. Dashrath, Dist. Vadodara-391 740
(22)	Sagar Motor Driving School, Jamnagar	Vinayak Petroleum, Moti Khavdi, Jamnagar.
(23)	All Gujarat Institute of Driving Technical Training and Research, Vadodara	Po. Gajadhara, Ta. Waghodia, Dist. Vadodara.

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PORTS AND TRANSPORT DEPARTMENT,

Notification

Sachivalaya, Gandhinagar, 13th September, 2011

THE ROAD TRANSPORT CORPORATION ACT, 1950.

No. : GG-2011-58-STC-1098-476(i)/GH:- In exercise of the powers conferred by sub-section (2) and (4) of section 5 of the Road Transport Corporation Act, 1950 read with Rule-3(1) of The Gujarat State Road Transport Corporation Rules, 1971 the Government of Gujarat hereby appoints Kum. S. Aparna, Secretary, (EA) Finance Department, as a Director of the Gujarat State Road Transport Corporation, vice Shri Atanu Chakraborty, transferred .

By order and in the name of the Governor of Gujarat,

MAHENDRA BHAVSAR,
Under Secretary to Govt. of Gujarat.

Government Central Press, Gandhinagar.

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Extra No. 94

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th September,, 2011.

NOTARIES RULES, 1956 :

No. GK/25/2011/NTR/1095/36/F.— In exercise of the powers conferred by rule 4 of the Notaries Rules, 1956 and in supersession of Government Notification, Legal Department No: GK/05/ 2008/ NTR/ 1095/36/F, dated the 9th February, 2011, the Government of Gujarat hereby designates **Shri N. N. Nayak, Joint Secretary to the Government of Gujarat in the Legal Department as the Competent Authority** for the purposes of the said Rules.

By order and in the name of the Governor of Gujarat,

O. L. PANDEY,
Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 95 REGISTERED NO. G/GNR/2

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 20th September, 2011.

MOTOR VEHICLE ACT, 1988.

No. : G/G/2011/59/STC/102011/781/GH .- In exercise of the powers conferred by sub-clause (i) in clause (d) of sub-section (1) section 67 of the Motor Vehicles Act, 1988 (59 of 1988), the Government of Gujarat hereby amends the Government Notification, Home Department No. : G/G/98/199/MVA/1895/1251/KH, dated the 3rd December, 1998, as follows, namely :-

1 In the said notification, in Schedule;-

(i) in column 2, under heading "Freight", in entry at serial no. (2), for the figure and word "30 paise", the figure and word "50 paise" shall be substituted;

(ii) in the Note, under the schedule, for the figures, brackets and words "50 (fifty) paise", the words "one rupee" shall be substituted.

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to the Government.

Government Central Press, Gandhinagar.

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Extra No. 96

REGISTERED NO. L2/RNP/G/GNR-84
વાર્ષિક લવાજમનો દર રૂા. ૩૦૦૦/-

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LABOUR AND EMPLOYMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 23rd September, 2011.

CONTRACT LABOUR (REGULATION & ABOLITION) ACT, 1970.

No: GHR-2011/112/CLA-15-2002-1833-M.3:- WHEREAS, the Government of Gujarat in exercise of the powers conferred by sub-sections (1) and (2) of section 10 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and in consultation with the State Advisory Contract Labour Board, has prohibited the employment of contract labour system prevailing in the Sweeping and Canteen process in the DGP Windsor India Limited (now known as Windsor Machines Limited), Village: Chhatral, Taluka: Kalol, District: Gandhinagar (hereinafter referred to as 'the said establishment') vide Government Notification, Labour and Employment Department, No:GHR-2004-150-CLA-2002-1833-M(3), dated the 5th November, 2004;

AND, WHEREAS, the said establishment has made a representation before the Government that the employment of Contract Labour system prevailing in the Sweeping and Canteen processes are not the core activities in their establishment and has also made a proposal to review the said notification;

NOW THEREFORE, in exercise of the powers conferred by sub-sections (1) and (2) of section 10 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) read with section 21 of the General Clauses Act, 1897, the Government of Gujarat, having regards to the conditions of works and benefits provided for the contract labour in the said establishment and all relevant factors in sub-section (2) of section 10 of the Act and in consultation with the State Advisory Contract Labour Board, hereby rescinds the Government Notification, Labour and Employment Department, No: GHR-2004-150-CLA-2002-1833-M(3), dated 5th November, 2004.

By order and in the name of the Governor of Gujarat,

RAMAN MAHERIYA,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 97

REGISTERED No. L2/RNP/G/GNR-84
વાર્ષિક લવાજમનો દર રૂા. ૩૦૦૦/-

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PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 27th September, 2011

MOTOR VEHICLES ACT, 1988.

No.G/G/2011/60/STC/102011/820/GH:- In exercise of the powers conferred by sub-section (1) of section 67 of the Motor Vehicles Act, 1988 (59 of 1988) and in supersession of all the notifications issued in this behalf, the Government of Gujarat, having regard to the provisions of clauses (a) to (d) of the sub-section (1) of section 67 of the said Act, hereby issues directions to the State Transport Authority regarding fixing of fares of Stage Carriages operated by the Gujarat State Road Transport Corporation plying in the city areas of Ahmedabad and Gandhinagar as specified in SCHEDULE I and in all other areas of the State of Gujarat as specified in SCHEDULE II, appended to this notification, with effect on and from 28th September, 2011.

2. Such fares shall be inclusive of tax payable by the passengers, if any, levied or leviable under the Bombay Motor Vehicles (Taxation of Passengers) Act, 1958 (Bom. LXVII of 1958) for the time being in force, for stage carriages plying,-

(a) In the city of Ahmedabad and Gandhinagar, in the areas and on the routes respectively specified in columns 2 and 3 of SCHEDULE I appended hereto and shall be subject to such maximum and minimum fares, as specified in column 4 thereof, and

(b) In all other areas and on the routes in the State of Gujarat, respectively specified in columns 2 and 3 of the SCHEDULES II appended hereto, and shall be subject to such maximum and minimum fares, as specified in columns 4 to 10 thereof.

3. In case of any journey undertaken by a student, if no such tax is leviable, the fares for such journey shall be so adjusted as to exclude therefrom the amount of such tax.

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SCHEDULE-I

Sr. No.	Area	Routes	Maximum fares inclusive of Passenger Tax
1	2	3	4
1	Areas comprised in the City of Ahmedabad as constituted under the Bombay Provisional Municipal Corporation Act, 1949, the Cantonment of Ahmedabad, the Urban Development Area of Gandhinagar – the Capital City as specified in Government Notification of Urban Development and Urban Housing Department No. GH /V / 49 of 1996 /UDA/ 1096 /123 /K, dtd. 12/3/1976 and other areas adjacent to any of them and the areas between any of the aforesaid areas where the stage carriage (city passengers bus services) are operated by the Gujarat State Road Transport Corporation.	(1) All routes within the City of Ahmedabad, the Cantonment of Ahmedabad, and Gandhinagar, Capital City. (2) Such routes serving the new Capital area or the city of Ahmedabad or the Cantonment of Ahmedabad and also areas adjacent to any of these areas or serving Gandhinagar, capital city, city of Ahmedabad or Cantonment of Ahmedabad and the areas between them as approved by the State Government under the proviso of Section 3 of the Bombay Motor Vehicles (Taxation of Passengers) Act, 1958, where the stage carriages (City passenger bus services) are operated by the Gujarat State Road Transport Corporation.	(i) Rs.5.00 per passenger per stage or part thereof for first stage. (ii) Thereafter Rs.1/- per passenger per stage or part thereof upto 11 stage. (iii) Thereafter Rs.1/- per passenger per every two stage or part thereof from 12th and 13th stage. (iv) Thereafter Rs.1/- per passenger per every three stage or part thereof. (v) In addition to the fare calculated above, Rs.2.00 shall be chargeable in Ahmedabad - Gandhinagar Point Service and Rs.1/- shall be chargeable in Gandhinagar City Point Service. (vi) Where Express services declared as such by the Gujarat State Road Transport Corporation and as approved by the State Transport Authority or the Regional Transport Authorities concerned are provided the same rate as mentioned in (i),(ii),(iii),(iv),(v) above plus 25% of the same. (vii) The minimum fare chargeable shall be Rs.5.00 per adult passenger and Rs.3/- for child passenger for a journey of first stage of two kilometers or part thereof: Provided further that if the place of boarding is not a stage point, the distance travelled shall be calculated from the immediately preceding stage point and where the place of getting down is not a stage point, the distance travelled shall be calculated upto the immediately succeeding stage point.

EXPLANATION:

(i) For the purpose of this Notification, the word "Stage" means distance of two kilometers.

(ii) Where the total fare calculated under any of the provisions of Column 4 is not an exact multiple of Rs.1/- , then it would be rounded off to the next higher multiple of Rs.1/-.

(iii) In this notification the expression "Stage Point" means any bus stop approved as such by the Regional Transport Authority for the purpose of computing or charging fare on a route

SCHEDULE - II

Sr. No.	Areas	Route	MAXIMUM RATES OF FARES INCLUSIVE OF PASSENGER TAX
			For Ordinary bus services
1	2	3	4
1	All areas in the State of Gujarat other than those referred to in the SCHEDULE -I where the stage carriages are operated.	All routes	(A) Rs.2.20 per passenger per stage of 6 Kilometers or part thereof but Rs.1.10 per sub-stage of 3 Kilometers or part thereof shall be chargeable upto 40 Stages. (B) Thereafter, Rs.1.70 per passenger per stage of 6 Kms. or part thereof shall be chargeable. (C) In addition to the fare calculated above, the passenger shall be chargeable additional fare of,- (i) Rs.3/- 1 stage to 1.5 stage. (ii) Rs.5/- 2 stage to 2.5 stage (iii) Rs.7/- 3 stage to 10 stage (iv) Rs.5/- 11 stage to 15 stage. (v) Rs. 3/- 16 stage to 25 stage. (vi) Rs. 2/- 26 stage to 35 stage. (vii) Rs. 1/- per passenger for a journey beyond 35 stages shall be chargeable. Provided that the minimum fare shall be Rs.6.00 per adult passenger and Rs.3.00 per child passenger for the first stage of 6 Kms. or part thereof. (D) There shall be no sub-stage beyond 10 stages: Provided further that where the place of boarding is not a stage or sub-stage point, the distance travelled shall be calculated from the immediately preceding stage or sub-stage point and where the place of getting down is not a stage or sub-stage point, the distance travelled shall be calculated upto the immediately succeeding stage or sub-stage point.

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MAXIMUM RATES OF FARES INCLUSIVE OF PASSENGER TAX	
For Express bus services	**For Gurjar Nagri bus services**
5	6
If Express bus service declared as such by the Gujarat State Road Transport Corporation and approved by the State Transport Authority or Regional Transport Authority concerned is provided the fare mentioned under column 4 plus the following additional fares, namely:- (i) Rs.4/- per passenger for a journey for first stage shall be chargeable. (ii) Rs.2/- per passenger for a journey from 2 to 5 stages shall be chargeable. (iii) Rs.9/- per passenger for a journey for sixth stage shall be chargeable. (iv) Rs.11/- per passenger for a journey from7 to 10 stages shall be chargeable. (v) Rs.21/- per passenger for a journey for 11th stage shall be chargeable. (vi) Rs.27/- per passenger for a journey from12 to 15 stages shall be chargeable. (vii) Rs. 28/- per passenger for a journey beyond 15 stages shall be chargeable. (iiv) There shall be no sub-stage: Provided that the minimum fare shall be Rs.10.00 per adult passenger and Rs.5.00 per child passenger for the first stage of 6 Kms. or part thereof: Provided further that where the place of boarding is not a stage point, the distance travelled shall be calculated from the immediately preceding stage point and where the place of getting down is not a stage point, the distance travelled shall be calculated upto the immediately succeeding stage point.	If Gurjar Nagri bus services declared as such by the Gujarat State Road Transport Corporation and approved by the State Transport Authority or Regional Transport Authority concerned is provided the fare mentioned under column 5 plus the following additional fares, namely:- (i) Rs.4/- per passenger for a journey upto 11ages shall be chargeable. (ii) Rs.8- per passenger for a journey from 12to 30 stages shall be chargeable. (iii) Rs.9/- per passenger for a journey beyond 30 stages shall be chargeable. (iv) There shall be no sub-stage: Provided that the minimum fare shall be Rs.14.00 per adult passenger and Rs.7.00 per child passenger for the first stage of 6 Kms. or part thereof: Provided that where the place of boarding is not a stage point, the distance travelled shall be calculated from the immediately preceding stage point and where the place of getting down is not a stage point, the distance travelled shall be calculated upto the immediately succeeding stage point.

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MAXIMUM RATES OF FARES INCLUSIVE OF PASSENGER TAX	
For Luxury bus services	**Sleeper Coach Bus Services**
7	8
If Luxury bus services declared as such by the Gujarat State Road Transport Corporation and approved by the State Transport Authority or Regional Transport Authority concerned is provided the fare mentioned under Column 5 plus the following additional fares namely: (i) Rs.9/- per passenger for a journey from 1 to 10 stages shall be chargeable. (ii) Rs.22/- per passenger for a journey for 11th stage shall be chargeable (iii) Rs.16/- per passenger for a journey from 12 to 14 stages shall be chargeable (iv) Rs.25/- per passenger for a journey beyond 14 stages shall be chargeable. (iii) There shall be no sub-stage: Provided that the minimum fare shall be Rs.19.00 per adult passenger and Rs.10.00 per child passenger for the first stage of 6 Kms. or part thereof: Provided that where the place of boarding is not a stage point, the distance travelled shall be calculated from the immediately preceding stage point and where the place of getting down is not a stage point, the distance travelled shall be calculated upto the immediately succeeding stage point.	In case of Sleeper Coach Bus Services Rs. 50 per berth per passenger shall be chargeable in addition to fare prescribed in column 7.

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MAXIMUM RATES OF FARES INCLUSIVE OF PASSENGER TAX	
For Air Condition Luxury Coach	**For Volvo bus services**
9	10
If Air Conditioned Luxury Coach bus service declared as such by the Gujarat State Road Transport Corporation and approved by the State Transport Authority or Regional Transport Authority concerned are provided the following fares charge, namely:- The fare chargeable be 1.00 per kilo meter. The minimum fare chargeable shall be Rs. 24.00 for an adult passenger and Rs.12.00 for a child passenger (upto 12 year age)	If Volvo bus services declared as such by the Gujarat State Road Transport Corporation and approved by the State Transport Authority or Regional Transport Authority concerned are provided the following charge fares, namely:- The fare chargeable be 1.40 per kilo meter. The minimum fare chargeable shall be Rs. 28.00 for an adult passenger and Rs.14.00 for a child passenger (upto 12 year age)

EXPLANATION:

(i) Where the total fares calculated under any of the provisions of Column No.4 to 7 is not an exact multiple of Rs.1/-, it shall be rounded off to the next higher multiple of Rs.1/-.

(ii) The journey comprised of 2 sub-stage shall be chargeable as journey for one stage.

(iii) In this notification the expression "STAGE POINT" or "Sub-stage point" means any bus stop approved as such by the Regional Transport Authority for the purpose of computing or charging fares on a route.

By order and in the name of the Governor of Gujarat.

A. M. TRIVEDI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

Extra No. 98

REGISTERED NO. L2/RNP/G/GNR/84
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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 30th September, 2011.

Commissions of Inquiry Act, 1952.

No. : GK/26/2011/COI/102009/205/A : WHEREAS the Government has, under Government Notification, Legal Department No. GK/11/2009/COI/102009/205/A, dated the 8th July, 2009, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), to inquire into the matters mentioned in paragraph 2 of the said notification;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 30th November, 2009 as provided in the aforesaid Notification of 8th July, 2009, and thereafter within the time limit extended till 30th September, 2011, as provided in the different subsequent Notifications;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the Sate Government;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 30th November, 2011;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952, (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No. GK/11/2009/COI/102009/205/A, dated the 8th July, 2009, as follows, namely :-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 30th September, 2011" the words, figures and letters "on or before the 30th November, 2011" shall be substituted.

By order and in the name of the Governor of Gujarat,

N. N. NAYAK,
Joint Secretary to Government.

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Government Central Press, Gandhinagar.

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Extra No. 99

REGISTERED No.L2/RNP/G/GNR/84
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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LABOUR AND EMPLOYMENT DEPARTMENT,

Notification

Sachivalaya, Gandhinagar, 30th September, 2011

EMPLOYEES STATE INSURANCE ACT, 1948.

No. : GHR-2011-117-ESI-18-2011-688529-M(3) :- In exercise of the powers conferred by sub-section (5) of section 1 of the Employees' State Insurance Act, 1948 (34 of 1948), the Government of Gujarat in consultation with the Employees' State Insurance Corporation and with the approval of the Central Government hereby gives a notice of its intention to extend the provisions of the Act to the classes of establishments as specified in the Schedule annexed hereto, for the information of all persons likely to be affected thereby and notice is hereby given that the said draft will be taken into consideration by the Government of Gujarat on or **after the expiry of one month from the date of publication** of this notification in the *Official Gazette*.

(2) Any objection or suggestion which may be received by the Principal Secretary, Labour and Employment Department, Sachivalaya, Gandhinagar, from any person in respect of the said draft notification on or before the expiry of the aforesaid period will be taken into consideration by the Government.

DRAFT NOTIFICATION

No. : GHR-2011-117-ESI-18-2011-688529-M(3) :- In exercise of the powers conferred by sub-section (5) of section 1 of the Employees' State Insurance Act, 1948 (34 of 1948), the Government of Gujarat in consultation with the Employees' State Insurance Corporation and with the approval of the Central Government hereby extends the provisions of the said Act to the classes of establishments specified in column (1) and situated within the areas specified in column (2) of the Schedule annexed hereto in the Gujarat State namely :-

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SCHEDULE

Description of establishments.	Areas in which the establishments are situated.
The following establishments whereon ten or more persons are employed, or were employed on any day of the preceding twelve months, namely :- (1) Shops; (2) Hotels; (3) Restaurants; (4) Road Motor Transport establishments; (5) Cinemas including preview theatres; (6) Newspaper establishments as defined in clause (d) of section 2 of the Working Journalists (Conditions of Service) and Miscellaneous provisions Act, 1955 (45 of 1955)	All areas where the provisions of the Employees' State Insurance Act, 1948, have already been brought into force under sub-section (3) of section 1 of the Act.

By order and in the name of the Governor of Gujarat,

Sd/- Illegible,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LABOUR AND EMPLOYMENT DEPARTMENT,

Notification

Sachivalaya, Gandhinagar, 3rd October, 2011

FACTORIES ACT, 1948.

No. : KHR-2011-124-FDE-102011-421185-M(1) :- In exercise of the powers conferred by sub-section (1) of section 8 of the Factories Act, 1948 (LXIII of 1948), the Government of Gujarat is pleased,

(1) to appoint Shri M. A. Bhutka to be an Inspector of Factories, on contract basis for the period of 06 months commencing from 03-10-2011, hereafter to work in the Surat Region in the State of Gujarat ;

(2) to direct that he shall exercise all the powers conferred by the said Act and Rules made thereunder in their respective region.

(3) to declare that the notice and returns prescribed under the said Act and Rules made thereunder shall be sent to Factory Inspection Office situated in the respective Districts.

(4) to specify the Director, Induatrial Safety & Health, Gujarat State, Ahmedabad, as the authority to whom the Chemical Inspector shall be officially subordinate.

By order and in the name of the Governor of Gujarat,

RAMAN MAHERIA,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

FINANCE DEPARTMENT

Notification

Sachiyalava. Gandhinagar, 29th September, 2011.

Constitution of India.

No. (GN-36) TSM-202010-558-(IWDMS-238085)-GH : In exercise of the powers conferred by the proviso to article 309 of the Constitution of India, the Governor of Gujarat hereby makes the following rules to provide for regulating the method of Special Competitive Examination for promotion to the post of Sub Accountant, Sub Auditor, or Data Entry Machine Operator, Class III, in the Subordinate Services of the Directorate of Accounts and Treasuries, Gujarat State, namely :

1.	Short title, commencement and Applicability.-	(1) These rules may be called the Sub Accountant, Sub Auditor, or Data Entry Machine Operator, Class III, (Special Competitive Examination) Rules, 2011. (2) They shall come into force from the date of their publication in the *Official Gazette.* (3) They shall apply to the persons who are eligible to be appointed by promotion as Sub Accountant, Sub Auditor or Data Entry Machine Operator, Class-III, in the Subordinate Services of the Directorate of Accounts and Treasuries, Gujarat State.
2.	Definitions.-	In these rules, unless the context otherwise requires,- (a) Appendix" means the Appendix appended to these rules; (b) "Board" means the Gujarat Subordinate Services Selection Board, Gandhinagar; (c) "examination" means the Special Competitive Examination held by the Board under these rules for promotion to the post of Sub Accountant, Sub Auditor, or Data Entry Machine Operator, Class III; (d) "Paper" means the paper specified in the Appendix I.
3.	Eligibility criteria.	A candidate who desires to appear in the examination shall- (i) have worked for not less than five years in the cadre of Junior Clerk, Clerk cum Typist (Gujarati) or Clerk cum Typist (English), Typist (Gujarati) or Typist (English), Class III, in the Subordinate Services of the Directorate of Accounts and treasuries, Gujarat State;

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		(ii) have passed the prescribed departmental examination; (iii) possesses a Bachelor degree obtained from any of the Universities or Institutions established or incorporated by or under the Central or State Act in India; or any other educational institution recognised as such or declared as deemed University under Section 3 of the University Grants Commission Act, 1956 or possess an equivalent qualification recognised as such by the Government; and (iv) have passed the qualifying examination for computer knowledge in accordance with the provisions of the Gujarat Civil Services Computer Competency Training and Examination Rules, 2006,
4.	Application for Examination.-	The eligible candidate who desires to appear in the examination shall apply in the form as specified in Appendix II alongwith such fees as may be determined by the State Government in the form of crossed Indian Postal Order drawn in favour of "Secretary, Gujarat Subordinate Services Selection Board,". The Director of Accounts and Treasuries shall verify the particulars submitted by the candidate in the application and certify for eligibility of the candidate as specified in Appendix III.
5.	Statement showing particulars of candidates.-	The Directorate of Accounts and Treasuries shall every year send to the Finance Department before the 31st July of the year, a statement showing the particulars of the eligible candidates desiring to appear at the examination to be held in that year alongwith the applications as prescribed in Appendix II and the Certificate as prescribed in Appendix III.
6.	Holding of Examinations :-	The examination shall ordinarily be held in the month of October every year at Ahmedabad or Gandhinagar.
7.	Candidates to appear in exam at own expense.-	The candidates shall have to appear in the examination at their own expenses.
8.	Syllabus.-	The syllabus for the examination shall be as specified in the Appendix I.
9.	Medium of Examinations.-	The medium of examination shall be Gujarati except for Paper II. The medium of examination for paper II shall be English.
10.	Qualifying standard for passing examination.-	The qualifying standard for passing the examination shall be as may be determined by the Board. The Board may, if necessary, fix different qualifying standards for reserved categories of candidates.
11.	Declaration of result.-	The Board shall publish the result of the examination in the *Official Gazette*, and also communicate the same to the Government, in Finance Department.
12.	Rechecking of Marks of the Examination.-	(1) A candidate, who desires to have his marks of the examination rechecked, may apply to the Board alongwith such fees as may be fixed by the Board for each paper within a period of fifteen days from the date of declaration of the final result of the examination. (2) A candidate, who desires to have the marksheet of the examination, may apply to the Board alongwith such fees as may be fixed by the Board within a period of fifteen days from the date of declaration of the final result of the examination.
13.	Board to regulate examination.-	The Board shall regulate all matters regarding conduct of the examination, appointment of paper setters, examiners, in accordance with the procedure approved by it and in conformity with Government orders or directives, in that behalf, if any.
14.	Promotion of successful candidates.-	The successful Candidates on the basis of the result under rule 11, shall be promoted as Sub Accountant, Sub Auditor, or Data Entry Machine Operator, Class III in the order of their merit if they are otherwise eligible to be promoted on the aforesaid posts, in the Subordinate Services of the Directorate of Accounts and Treasuries.

APPENDIX-I

(See Rule 8)

Syllabus for the Special Competitive Examination for the post of Sub-Accountant, Sub-Auditor or Data Entry Machine Operator, Class III.

Paper	Syllabus	Marks
Paper-I Gujarati Total Marks 100 (without books) Time : Three hours	(i) Comprehension : Answers to questions from a paragraph	10 Marks
	(ii) Precis Writing,	10 Marks
	(iii) Repot Writing,	10 Marks
	(iv) Letter Writing,	10 Marks
	(v) Essay (not exceeding 400 words),	20 Marks
	(vi) Thought Expansion,	10 Marks
	(vii) Grammar,-	20 Marks
	(a) Juncture	
	(b) Composition of words -	
	(c) Phrases	
	(d) Proverbs	
	(e) Idioms	
	(f) Spelling, and	
	(viii) Translation from English to Gujarati.	10 Marks
Paper-II English Total Marks 100 (without books) Time : Three hours	(i) Essay (Not exceeding 300 words) (on Topics related to Government Business)	25 Marks
	(ii) Precis Writing,	15 Marks
	(iii) Repot Writing,	10 Marks
	(iv) Letter Writing,	10 Marks
	(v) Translation from Gujarati to English and	20 Marks
	(vi) Grammar,-	20 Marks
	(a) Use of tenses	
	(b) Phrase, Verbs, Idioms and Vocabulary	
	(c) Change the voice	
	(d) direct-Indirect Speech.	
Paper-III : Service Rules and Auditing Total Marks 100 (without books) Time : Three hours	**Part-I**	
	(i) The Bombay Contingent Expenditure.Rules, 1959	25 Marks
	(ii) The Bombay General Provident Fund Rules, 1936	20 Marks
	(iii) The Gujarat Local Fund Audit Act, 1963 and The Gujarat Local Fund Audit Rules, 1974	15 Marks
	(iv) The Delegation of Financial Powers Rules, 1998 and various orders issued thereunder	10 Marks
	Part-II	
	General Knowledge	
	(i) Constitution of India with Special reference to (a) fundamental Rights (b) Directive Principles of state policy (c) Union List, State List and Concurrent List (d) Article 309 i.e. Recruitment and Conditions of Services of persons serving in the Union or State (e) Article 315 i.e. The Public Service Commission for the Union and for the State (f) Provision for Scheduled Castes/ Scheduled Tribes.	15 Marks
	(ii) State Economy, Current Five Years Plan and Annual Development Programme - Gujarat, Annual Budget - Provisions under different important Sectors.- Gujarat.	10 Marks
	(iii) Questions related to applied knowledge of right to Information Act, 2005.	5 Marks

Note :-

(1) The Standard of Gujarati paper shall be equivalent to the Gujarati subject (Higher level) of 12th standard of the Gujarat Secondary and Higher Secondary Education Board.

(2) The standard of English paper shall be equivalent to the English subject (Lower level) of 12th Standard of the Gujarat Secondary and Higher Secondary Education Board.

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APPENDIX-II

(See rules - 4 and 5)

Application Form

Special Competitive Examination for Junior Clerk or Clerk cum Typist (Gujarati) or Clerk cum Typist (English), Typist (Gujarati) or Typist (English), Class-III, in the office of the Directorate of Accounts and Treasuries for the purpose of promotion to the post of Sub-Accountant, Sub-Auditor, or Data Entry Machine Operator, Class III.

1	Full Name in English and Gujarati (Write Surname First)		
2	Present Designation		
3	Date of Birth		
4	Department/Office		
5	Date of Appointment in. the present Cadre		
6	Date of Completion of five years regular service in the present cadre		
7	Seniority No. in the Seniority List of Junior Clerk, Clerk cum Typist (Gujarati) or Clerk cum Typist (English), Typist (Gujarati) or Typist (English), Class-III		
8	Educational Qualification (a) Degree (b) Year of passing the degree examination (enclose verified two copies of mark sheet and Degree Certificate)		
9	Whether You are SC/ST/SEBC candidate (If yes, enclose two copies of Caste Certificate)		
10	Examination Fee Details of Indian Postal Order No. : Amount in (Enclose a copy)		
11	Whether passed the Departmental Examination for the promotion on the post of Sub-Accountant, Sub-Auditor, or Data Entry Machine Operator Class III, and Computer knowledge CCC exam? If yes, year of passing the Examination.		

Signature of Candidate

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APPENDIX-III

(See rule - 4 and 5)

Certificate

This is to certify that Shri/Smt./Kum.....is eligible to appear in the said examination and he/she has paid the fees of ₹...../- by the Indian Postal Order as required under the provisions of the Sub-Accountant or Sub-Auditor, or Data Entry Machine Operator, Class-III, (Special Competitive Examination) Rules, 2011,

Aforesaid details are verified from the department's record and found correct.

Signature and seal of the
Head of the Department.

By order and in the name of the Governor of Gujarat,

K. M. ADHVARYU,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FINANCE DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 5th October, 2011.

CONSTITUTION OF INDIA.

No. (GN-38) VVK-1209-348-TH-3:-In exercise of the powers conferred by the proviso to article 309 of the Constitution of India, the Governor of Gujarat hereby makes the following rules further to amend the Gujarat Commercial Tax Senior Clerk, Class-III, (Competitive Examination) Rules, 2009, namely:-

1. These rules may be called the Gujarat Commercial Tax Senior Clerk, Class-III (Competitive Examination) (Amendment) Rules, 2011.

2. In the Gujarat Commercial Tax Senior Clerk, Class-III (Competitive Examination) Rules, 2009 (hereinafter referred to as "the said rules"), for rule 6, the following rule shall be substituted namely;

 "6. Medium of Examination: Except in case of English Grammar, the medium of examination shall be Gujarati."

3. In the said rules, in rule 15, in sub-rule (1), for the words "all question papers", the words "the question paper" shall be substituted.

4. In the said rules, in rule 18, the words "for each paper "shall be deleted.

5. In the said rules, in rule 20, for the words "To quality", the word "qualifying" shall be substituted.

6. In the said rules, after rule 24, the following rule shall be added, namely; " 25. (1) Notwithstanding anything contained in the forgoing rules and subject to the general or special order of the Government, the examination, for occasion for the combined period of year 2011 and 2012, for selection of candidates for recruitment to the post of Senior Clerk, class-III, in the Subordinate Service of the Gujarat Commercial Tax Services, may be conducted by a committee as may be specially constituted by the State Government for the said purpose.

 (2) Other provision of these rules shall apply *mutatis mutandis* to such competitive examination and also for the purpose of selection of candidates for the recruitment under these rules."

7. In the said rules for the existing SCHEDULE the following shall be substituted, namely:-

SCHEDULE
(see rule 4)

Syllabus for Competitive Examination for recruitment to the post of Senior Clerk, class-III

Subject of the question paper	Total Marks assigned	Aggregate Time
(i) Gujarati Language	35	Two Hours
(ii) Gujarati Grammar	35	
(iii) English Grammar	40	
(iv) General Studies	90	

Note:-

(1) The question paper shall be of objective type with multiple choice answers.

(2) The standard of the questions of Gujarati language and Gujarati Grammar shall be the same as that of twelfth standard examination of Gujarat Subject (Higher level) conducted by the Gujarat Secondary and Higher Secondary Education Board.

(3) The standard of the questions of English Grammar shall be the same as that of twelfth standard examination of English subject (Lower level) conducted by the Gujarat Secondary and Higher Secondary Education Board.

(4) The standard of the questions of General Studies shall be of a degree level."

By order and in the name of the Governor of Gujarat,

K. M. ADHVARYU
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 103

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PART IV-A
Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 18th October, 2011.

CONSUMER PROTECTION ACT, 1986

NO.GTH/2011/42/CPA/102010/1049452/D .- In exercise of the powers conferred by section 10 (2) of the Consumer Protection Act, 1986, the Government of Gujarat hereby accepts the resignation of Mr. G. A. Ahuja appointed as Judicial Member of Consumer Disputes Redressal Commission, Ahmedabad, with retrospective effect, after office hours of dated 20/9/2011.

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer to Food Civil Supplies & Consumer Affairs Department.

Government Central Press, Gandhinagar.

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

HOME DEPARTMENT (Special),

Notification

Sachivalaya, Gandhinagar, 5th November,, 2011.

THE CONSERVATION OF FOREIGN EXCHANGE AND PREVENTION OF SMUGGLING ACTIVITIES ACT, 1974 :

No.GG/66/2011/SBIII/PAS/1099/726.— In exercise of the powers, conferred by Section 8 of the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 the Government of Gujarat is pleased to extend the following Advisory Board under the Chairmanship of Hon'ble Mr. Justice (Retd.) *J. U. Mehta*, for a further period of **three months with effect from 9th November, 2011 or till further orders** are issued, whichever is earlier.

(1) Hon'ble Mr. Justice (Retd.) J. U. Mehta, Chairman.

(2) Hon'ble Mr. Justice (Retd.) D. K. Trivedi, Member.

(3) Hon'ble Mr. Justice (Retd.) H. R. Shelat, Member.

By order and in the name of the Governor of Gujarat,

RAHUL GUPTA,
Deputy Secretary to Government.

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HOME DEPARTMENT (Special),

Notification

Sachivalaya, Gandhinagar, 5th November,, 2011.

THE NATIONAL SECURITY ACT, 1980 :

No.GG/67/2011/SBIII/PAS/1099/726.— In exercise of the powers, conferred by Section-9 of the National Security Act Act, 1980, the Government of Gujarat is pleased to extend the following Advisory Board under the Chairmanship of Hon'ble Mr. Justice (Retd.) ***J. U. Mehta,*** for a further period of **three months with effect from 9th November, 2011 or till further orders are issued,** whichever is earlier.

(1) Hon'ble Mr. Justice (Retd.) J. U. Mehta, Chairman.

(2) Hon'ble Mr. Justice (Retd.) D. K. Trivedi, Member.

(3) Hon'ble Mr. Justice (Retd.) H. R. Shelat, Member.

By order and in the name of the Governor of Gujarat,

RAHUL GUPTA,
Deputy Secretary to Government.

HOME DEPARTMENT (Special),

Notification

Sachivalaya, Gandhinagar, 5th November,, 2011.

THE PREVENTION OF ILLICIT TRAFIC IN NARCOTIC DRUGS AND PSYCHOTROPIC SUBSTANCES ACT, 1988 :

No.GG/68/2011/SBIII/PAS/1099/726.— In exercise of the powers, conferred by Section 9 of the Prevention of Illicit Tratic in Narcotic Drugs and Psychotropic Substances Act, 1988, the Government of Gujarat is pleased to extend the following Advisory Board under the Chairmanship of Hon'ble Mr. Justice (Retd.) ***J. U. Mehta,*** for a further period of **three months with effect from 9th November, 2011 or till further orders are issued,** whichever is earlier.

(1) Hon'ble Mr. Justice (Retd.) J. U. Mehta, Chairman.

(2) Hon'ble Mr. Justice (Retd.) D. K. Trivedi, Member.

(3) Hon'ble Mr. Justice (Retd.) H. R. Shelat, Member.

By order and in the name of the Governor of Gujarat,

RAHUL GUPTA,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 105

REGISTERED No. L2/RNP/G/GNR-84
વાર્ષિક લવાજમનો દર રૂા. ૩૦૦૦/-





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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

HEALTH AND FAMILY WELFARE DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 3rd November, 2011

PRE-CONCEPTION AND PRE-NATAL DIAGNOSTIC TECHNIQUES (PROHIBITION OF SEX SELECTION) ACT, 1994.

No. GP/18/PNDT/102008/853/B.1 .- In exercise of the powers conferred by sub-section (2) of section 17 of the Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994 (57 of 1994), the Government of Gujarat hereby amends the Government Notification, Health and Family Welfare Department No. : GP-28-PNDT-102008-853-B.1, Dated the 30th August, 2008, as follows :-

In the Schedule appended to the said notification, for the existing entries at serial Nos. 30, 125 128,130,158 and 159, the following entries shall be substituted respectively, namely :-

Sr. No.	Officer	Taluka	District	Area Covered for Health Activities by Block Health Officer will be Considered as an Area for the jurisdiction of Sub-District Appropriate Authority
"30	Block Health Officer, Vyara	Vyara	Tapi	Vyara
125	Block Health Officer, Valod	Valod	Tapi	Valod
128	Block Health Officer, Songadh	Songadh	Tapi	Songadh
130	Block Health Officer, Nizar	Nizar	Tapi	Nizar
158	Block Health Officer, Vankaner	Vankaner	Rajkot	Vankaner/Tankara
159	Block Health Officer, Morbi	Morbi	Rajkot	Morbi/Malia-Miyana".

By order and in the name of the Governor of Gujarat,

K. L. KHANT,
Under Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 106

REGISTERED No. L 2/RNP/G/GNR-84
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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 16th November,, 2011.

INDUSTRIAL DISPUTES ACT, 1947 :

No. GK/28/2011/ICE/2005/4149/D.— In exercise of the powers conferred by section 7A of the Industrial Disputes Act, 1947, ((XIV of 1947) (hereinafter referred to as "the said Act"), the Government of Gujarat hereby amends the Government Notification, Legal Department No.GK-16-2011-ICE-2005-4149-D, dated the 23rd June, 2011 as under namely ;-

In the said Notification, in the Schedule, in column 3 under the heading "Local area" for the words "District of Ahmedabad, Gandhinagar, Mehsana, Patan, Banaskantha and Sabarkantha", the the wods " All the Districts of the State of Gujarat", shall be substituted.

By order and in the name of the Governor of Gujarat,

M. J. PARASHAR,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 107

REGISTERED No. L 2/RNP/G/GNR-84
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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 14th November,, 2011.

PREVENTION OF CORRUPTION ACT, 1988 :

No. : EXC/1091/5861/D(Part-1) :— In exercise of the powers conferred by section-3 of the Prevention of Corruption Act, 1988 (49 of 1988), the Government of Gujarat with the concurrence of the High Court of Gujarat, hereby appoints below mentioned judges of City Civil Courts to preside over the C.B.I. Courts established under Government Notification, No. Legal Department **No. GK / 21 / 2011 / EXC / 1091 / 5861 /D (Part-1)**, dated 26-7-2011, for exclusive trial of cases filed by the Central Bureau of investigation, with effect from the date, they take over the charge of said post.

Sr. No.	Name	Present Post	Place of Posting
1	Shree V. P.Patel	Judge City Civil Court, Ahmedabad	CBI Court No.I
2	Shree V. B. Mayani	Judge City Civil Court, Ahmedabad	CBI Court No.II
3	Shree R. M. Parmar	Judge City Civil Court, Ahmedabad	CBI Court No.III
4	Shree A. M. Bhimani	Judge City Civil Court, Ahmedabad	CBI Court No.IV

By order and in the name of Governor of Gujarat,

M. J. PARASHAR,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 108

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

FOREST & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 18th November, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No. GVN-2011/(20)/JJM-SF-16-F.—In exercise of the powers conferred by section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its application to the State of Gujarat, (hereinafter referred to as "The said Act".) the Government of Gujarat hereby :-

1. (a) Declares that it has been decided to constitute the land in the village of **Vanala** in **Jasdan** Taluka of **Rajkot** District specified in the schedule appended hereto, as **"Reserved Forests"** and,

 (b) Appoints the Forest Settlement Officer, **Junagadh** (hereinafter referred to as **"The Forest Settlement Officer"** to be the Officer for the purpose of clause (c) of Sub-section(1) of Section-4 and,

2. Appoints the Collector, **Rajkot** District at **Rajkot** to hear the appeals from any orders passed by the said Forests Settlement Officer under Section 11, 12, 15 and 16 of the said Act.

SCHEDULE

Taluka : Jasdan **District : Rajkot**

Sr. No.	Name of the Village	Survey No.	Area in Hactor Ha. Re. Sq.mt.	Boundaries
1	VANALA	163 Pt.	50-00-00	**North** : S.No.163Pt., 133, 134 **East** : S.No.163Pt., 151 **South** : Village Boundary of Bhdli **West** : S.No.163Pt, 134 and Road

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to Government.

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વન અને પર્યાવરણ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૧૮મી નવેમ્બર, ૨૦૧૧.

સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ના ૧૬માં) અધિનિયમ અન્વયે.

ક્રમાંક : ગવન-૨૦૧૧-(૨૦)-જજમ-૨૦૧૧-એસેએફ-૧૬-એફ.-- ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ ના ૧૬માં) અધિનિયમ જેનો આમાં હવે પછી ''ઉક્ત અધિનિયમ'' તરીકે ઉલ્લેખ કર્યો છે. તેની કલમો (૪) અને (૧૭)ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર, આથી...

(૧) (અ) જાહેર કરે છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ **રાજકોટ** જિલ્લાના **જસદણ** તાલુકાના **મોજે. વનાળા** ગામની જમીનને **''અનામત જંગલ''** તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે, અને...

(બ) જંગલ નિયામક અધિકારી (ફોરેસ્ટ સેટલમેન્ટ ઓફિસર) **જૂનાગઢ** ને જેનો આમાં હવે પછી ઉક્ત ''ફોરેસ્ટ સેટલમેન્ટ ઓફિસર'' તરીકે ઉલ્લેખ કર્યો છે તેની કલમ-૪ની પેટા કલમ (૧) ની કલમ-(ક)ના હેતુઓ સારૂ અધિકારી તરીકે નિયુક્ત કરવામાં આવે છે.

(૨) ઉક્ત અધિનિયમની કલમો ૧૧, ૧૨, ૧૫ અને ૧૬ અન્વયે ઉક્ત ફોરેસ્ટ સેટલમેન્ટ ઓફિસરે પસાર કરેલ કોઈપણ આદેશો પર અપીલ સાંભળવા **રાજકોટ** જિલ્લાના કલેક્ટરશ્રીને નિયુક્ત કરવામાં આવે છે.

અનુસૂચિ

તાલુકો : જસદણ **જિલ્લો : રાજકોટ**

અ. નં.	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે.આર.ચો.મી.	ચર્તુ સીમા
૧.	વનાળા	૧૬૩ પૈકી	૫૦-૦૦-૦૦	**ઉત્તર** : સ.નં. ૧૬૩ પૈકી ૧૩૩, ૧૩૪ **પૂર્વ** : સ.નં. ૧૬૩ પૈકી ૧૫૧ **દક્ષિણ** : ભડલી ગામનો સીમાડો **પશ્ચિમ** : સ.નં. ૧૬૩ પૈકી ૧૩૪ તથા રોડ

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,

સરકારના ઉપસચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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Extra No. 109

REGISTERED No.L 2/RNP/G/GNR-84
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PART IV-A

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FOREST & ENVIRONMENT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 18th November, 2011.

INDIAN FOREST ACT, 1927 (XVI OF 1927)

No. GVN-2011(21)JJM-2011-SF-15-F.—In exercise of the powers conferred by section (4) and (17) of the Indian Forest Act, 1927 (XVI of 1927). In its application to the State of Gujarat, (hereinafter referred to as "The said Act".) the Government of Gujarat hereby :-

1. (a) Declares that it has been decided to constitute the land in the village of **Virpur(Bhadla)** in **Jasdan** Taluka of **Rajkot** District specified in the schedule appended hereto, as **"Reserved Forests"** and,

(b) Appoints the Forest Settlement Officer, **Junagadh** hereinafter referred to as "**The Forest Settlement Officer**" to be the Officer for the purpose of clause (c) of Sub-section(1) of Section-4 and.

2. Appoints the Collector, **Rajkot** District at **Rajkot** to hear the appeals from any orders passed by the said Forests Settlement Officer under Section 11, 12, 15 and 16 of the said Act.

SCHEDULE

Taluka : Jasdan **District : Rajkot**

Sr. No.	Name of the Village	Survey No.	Area H. R. Sq.mt.	Boundaries
1	Virpur (Bhadla)	85/1 Pt.	50-00-00	**North :** S.No.85 Pt. **East :** Village Boundary of Veraval **South :** S.No.85 Pt. **West :** S.No.85 Pt.

By order and in the name of the Governor of Gujarat,

J. N. PATEL,
Under Secretary to Government.

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વન અને પર્યાવરણ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૧૮મી નવેમ્બર, ૨૦૧૧.

સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭નો ૧૬માં) અધિનિયમ અન્વયે.

ક્રમાંક : ગવન-૨૦૧૧-(૨૧)-જજમ-૨૦૧૧-એસએફ-(૧૫)એફ.-- ગુજરાત રાજ્યને લાગુ હોય તેટલે સુધી, સને ૧૯૨૭ના ભારતના જંગલો બાબતના (સને ૧૯૨૭ ના ૧૬માં) અધિનિયમ જેનો આમાં હવે પછી ''ઉક્ત અધિનિયમ'' તરીકે ઉલ્લેખ કર્યો છે. તેની કલમો (૪) અને (૧૭)ની રૂએ મળેલા અધિકારો અન્વયે ગુજરાત સરકાર, આથી...

૧. (અ) જાહેર કરેલ છે કે, આ સાથે જોડેલી અનુસૂચિમાં નિર્દિષ્ટ કરેલ **રાજકોટ** જિલ્લાના **જસદણ** તાલુકાના **મોજે. વીરપર(ભાડલા)** ગામની જમીનને **''અનામત જંગલ''** તરીકે જાહેર કરવાનું નક્કી કરવામાં આવ્યું છે, અને...

(બ) જંગલ નિયામક અધિકારી (ફોરેસ્ટ સેટલમેન્ટ ઓફિસર) **જૂનાગઢ** ને જેનો આમાં હવે પછી ઉક્ત ''ફોરેસ્ટ સેટલમેન્ટ ઓફિસર'' તરીકે ઉલ્લેખ કર્યો છે તેની કલમ-૪ની પેટા કલમ (૧) ની કલમ-(ક)ના હેતુઓ સારૂ અધિકારી તરીકે નિયુક્ત કરવામાં આવે છે.

૨. ઉક્ત અધિનિયમની કલમો ૧૧, ૧૨, ૧૫ અને ૧૬ અન્વયે ઉક્ત ફોરેસ્ટ સેટલમેન્ટ ઓફિસરે પસાર કરેલ કોઇપણ આદેશો પર અપીલ સાંભળવા **રાજકોટ** જિલ્લાના કલેક્ટરશ્રીને નિયુક્ત કરવામાં આવે છે.

અનુસૂચિ

તાલુકો : જસદણ **જિલ્લો : રાજકોટ**

અ. નં.	ગામનું નામ	સર્વે નંબર	વિસ્તાર હે.આર.ચો.મી.	ચર્તુ સીમા
૧.	વીરપર (ભાડલા)	૮૫/૧ પૈકી	૫૦-૦૦-૦૦	**ઉત્તર** : સ.નં. ૮૫ પૈકી **પૂર્વ** : મોજે વેરાવળનો સીમાડો **દક્ષિણ** : સ.નં. ૮૫ પૈકી **પશ્ચિમ** : સ.નં. ૮૫ પૈકી

ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,
સરકારના ઉપસચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

Extra No. 110

REGISTERED NO. L 2/RNP/G/GNR-84
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PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 21st November, 2011

MOTOR VEHICLES ACT, 1988.

No. : PT-2011-69-MVD-102011-1787/KH:- The following draft of rules which, is proposed to be issued under clause (f) of sub-section (2) of section 65 of the Motor Vehicles Act, 1988 (59 of 1988), is published as required by sub-section (1) of section 212 of the said Act, for the information of all persons likely to be affected thereby and notice is hereby given that the said draft will be taken into consideration by the Government of Gujarat on or after the expiry of thirty days from the date of its publication of the *Official Gazette*.

2. Any objections or suggestions which may be received by the Additional Chief Secretary to the Government of Gujarat, Ports and Transport Department Sachivalaya, Gandhinagar, from any person with respect to the said draft before the expiry of the aforesaid period, will be considered by the Government.

DRAFT NOTIFICATION

MOTOR VEHICLES ACT, 1988.

No. PT/2011/69/MVD/102011/1787/KH:-In exercise of the powers conferred by clause (f) of sub-section (2) of section 65 of the Motor Vehicles Act, 1988 (59 of 1988), the Government of Gujarat, hereby makes the following rules further to amend the Gujarat Motor Vehicles Rules, 1989, namely:-

1. These rules may be called the Gujarat Motor Vehicles (Amendment) Rules, 2011.
2. In the Gujarat Motor Vehicles Rules, 1989, in rule 52 in sub-rule (3), after entry (iv), the following new entry shall be inserted, namely:-
"(V)Asia Motor Works Ltd."

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Govt.

Government Central Press, Gandhinagar.

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Extra No. 111

REGISTERED No.L 2/RNP/G/GNR-84
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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS & TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 23rd November, 2011.

MOTOR VEHICLE ACT, 1988 :

No. PT/2011/71/MVA/18/2009/3209/KH.— In exercise of the powers conferred by sub-section (1) of Section 67 of the Motor Vehicle Act, 1988 and in supersession of Government Notification, Ports & Transport Department No. PT/2010/58/MVA/18/2009/3209/KH, dated 23rd December 2010, the Government of Gujarat having regard to the provisions of clause (a) of said sub-section (1), hereby issue directions to the State Transport Authority and the Regional Transport Authorities regarding fixing of fares and freights for the contract carriages with seating capacity of 3 (three) adult passengers excluding the driver and generally known as auto rickshaws plying in the State of Gujarat as specified in Schedule appended to this Notification with effect from the data of publication of the same in the official Gazette, namely:-

Fares and freights for the contract carriages specified in column 1 of the Schedule appended hereto plying in the State of Gujarat, shall be subject to such minimum and maximum fares as specified against them in column 2 and 3 respectively of the Schedule;

SCHEDULE

Contract Carriage	Fares	Freight
1	2	3
Motor Cabs with seating capacity of three adult passengers excluding the driver, generally known as auto rickshaws	**(I).** For journey inside the municipal and contiguous cantonment limits the Fares shall be:- **(a)** For the first 1.2 kilometer or part thereof Rs. 11/- (Rupees Eleven only). **(b)** for subsequent each 1/5 kilometer of part thereof Rs. 1.40 (Rupee One and Paisa Forty only)	Rs. 1/- (Rupee one) per article of luggage: Provided that article not exceeding fifteen kilograms in the aggregate shall not be charged: Provided further that no part of luggage carried should project outside the vehicle and that the maximum luggage carried shall be sixty kilograms.

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Contract Carriage	Fares	Freight
1	2	3
	(II). for journey outside the municipal and contiguous cantonment limits, fares can be charged at one and half times the rate mentioned in clause (1) above, for that portion of journey which lies outside the municipal and cantonment limits: provided that when the auto rickshaw is hired for a journey outside the municipal and contiguous cantonment limits and the passengers perform the return journey in the same auto rickshaw and come back within the municipal and contiguous cantonment limits irrespective of the original journey has started, the entire journey shall be charged at the rate specified in clause (I) above.	
	(III). Detention i.e. waiting charges shall be Rs. 1/- (Rupee One) for every five minutes after expiry of the first five minutes.	
	(IV). The maximum waiting limit should be one hour within the city limit and the cantonment area, and two hours for outside the city area.	
	(V). Surcharge at 50% of the basic fares specified in clause I and II above shall be charged for journey between 11-00 p.m. and 5-00 a.m. if the journey commences between 11-00 p.m. and 5.00 a.m. irrespective of the time of conclusion of journey.	

Note:- For the purpose of this Notification "luggage" means any goods carried by the passengers in the auto rickshaw.

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 112

REGISTERED No.L2/RNP/G/GNR/84
વાર્ષિક લવાજમનો દર રૂા. ૩૦૦૦/-





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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 30th November, 2011.

Commissions of Inquiry Act, 1952.

No. : GK/30/2011/COI/102009/205/A : WHEREAS the Government has, under Government Notification, Legal Department No. GK/11/2009-/COI/102009/205/A, dated the 8th July, 2009, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the matters mentioned in paragraph 2 of the said notification;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 30th November, 2009 as provided in the aforesaid Notification of 8th July, 2009, and thereafter within the time limit extended till 30th November, 2011, as provided in the different subsequent Notifications;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the State Government;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 31st December, 2011;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No.GK/11/2009-COI/102009/205/A, dated the 8th July, 2009, as follows, namely :-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 30th November, 2011" the words, figures and letters "on or before the 31st December, 2011" shall be substituted.

By order and in the name of the Governor of Gujarat,

N. N. NAYAK,

Joint Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 113

REGISTERED No. L2/RNP/G/GNR-84
વાર્ષિક લવાજમનો દર રૂા. ૩૦૦૦/-

सत्यमेव जयते

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 8th December, 2011.

Read:- (1) Notification No. GSR/GTH/2001/28/CPA/1098/2860/D. Dated : 27/11/2001.

(2) Resolution No : CPA/1098/2860/D, Dated : 15/2/2006.

CONSUMER PROTECTION ACT, 1986.

No. GTH/2011/43/CPA/102009/430251/D.— In exercise of the powers conferred by sub-section (2) of Section 30 read with sub-section (3) of Section-10 and Sub-section (2) of section-16 of the Consumer Protection Act, 1986 as amended in 1996 and 2002, Government of Gujarat hereby makes the following rules further to amend the Gujarat Consumer Protection Rules, 1988 namely:-

(1) These rules may be called The Gujarat Consumer Protection (Amendment) Rules, 2011.

(2) It shall come into force from the date of issue of this notification.

(3) The word and figures "6500" appearing in sub-rule (1) of rule 3 of the said rules be substituted by the word and figures Rs. "10,000/-".

(4) The word and figures "10,000" appearing in sub-rule (1) of rule 7 of the said rules shall be substituted by the word and figures "Rs. 15,000/-".

By order and in the name of the Governor of Gujarat,

R. A. CHAVDA,
Section Officer,
Food, Civil Supplies &
Consumer Affairs Department.

Government Central Press, Gandhinagar.

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Extra No. 114

REGISTERED No.L 2/RNP/G/GNR-34
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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS & TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 13th December, 2011.

MOTOR VEHICLE ACT, 1988 :

No. PT/2011/73/MVA/18/2009/3209/KH.— In exercise of the powers conferred by sub-section (1) of Section 67 of the Motor Vehicle Act, 1988 and in supersession of Government Notification, Ports & Transport Department No. PT/2011/71/MVA/18/2009/3209/KH, dated 23rd November 2011, the Government of Gujarat having regard to the provisions of clause (a) of said sub-section (1), hereby issue directions to the State Transport Authority and the Regional Transport Authorities regarding fixing of fares and freights for the contract carriages with seating capacity of 3 (three) adult passengers excluding the driver and generally known as auto rickshaws plying in the State of Gujarat as specified in Schedule appended to this Notification with effect from the data of publication of the same in the official Gazette, namely:-

Fares and freights for the contract carriages specified in column 1 of the Schedule appended hereto plying in the State of Gujarat, shall be subject to such minimum and maximum fares as specified against them in column 2 and 3 respectively of the Schedule;

SCHEDULE

Contract Carriage	Fares	Freight
1	2	3
Motor Cabs with seating capacity of three adult passengers excluding the driver, generally known as auto rickshaws	**(I).** For journey inside the municipal and contiguous cantonment limits the Fares shall be:- **(a)** For the first 1.2 kilometer or part thereof Rs. 11/- (Rupees Eleven only). **(b)** for subsequent each 1/5 kilometer of part thereof Rs. 1.50 (Rupee One and Paisa Fifty only)	Rs. 1/- (Rupee one) per article of luggage: Provided that article not exceeding fifteen kilograms in the aggregate shall not be charged: Provided further that no part of luggage carried should project outside the vehicle and that the maximum luggage carried shall be sixty kilograms.

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Contract Carriage	Fares	Freight
1	2	3
	(II). for journey outside the municipal and contiguous cantonment limits, fares can be charged at one and half times the rate mentioned in clause (I) above, for that portion of journey which lies outside the municipal and cantonment limits: provided that when the auto rickshaw is hired for a journey outside the municipal and contiguous cantonment limits and the passengers perform the return journey in the same auto rickshaw and come back within the municipal and contiguous cantonment limits irrespective of the original journey has started, the entire journey shall be charged at the rate specified in clause (I) above.	
	(III). Detention i.e. waiting charges shall be Rs. 1/- (Rupee One) for every five minutes after expiry of the first five minutes.	
	(IV). The maximum waiting limit should be one hour within the city limit and the cantonment area, and two hours for outside the city area.	
	(V). Surcharge at 50% of the basic fares specified in clause I and II above shall be charged for journey between 11-00 p.m. and 5-00 a.m. if the journey commences between 11-00 p.m. and 5.00 a.m. irrespective of the time of conclusion of journey.	

Note :- For the purpose of this Notification "luggage" means any goods carried by the passengers in the auto rickshaw.

By order and in the name of the Governor of Gujarat,

MAHENDRA BHAVSAR,
Under Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 115

REGISTERED No.L 2/RNP/G/GNR-84
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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS & TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 14th December, 2011.

CONSTITUTION OF INDIA :

No. PT/74/2011/MVO/10/2010/1131/KH.— In exercise of the powers conferred by the proviso to article 309 of the Constitution of India, the Government of Gujarat hereby makes the following rules further to amends the Inspector of Motor Vehicles, Class II, Recruitments Rules, 2006, namely :-

1. These rules may be called the Inspector of Motor Vehicles, Class II Recruitments (Second Amendment) Rules, 2011.

2. In the Inspector of Motor Vehicles, Class II, Recruitments Rules, 2006 in rule 2 for clause (b), the following shall be substituted, namely:-

"by direct selection on the basis of the result of the competitive examination held for the purpose by the Gujarat Public Service Commission."

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 116

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 15th December, 2011.

MOTOR VEHICLES ACT, 1988

PT/2011/ 75 /MTA/182010/2854/KH: In exercise of the powers conferred by clause (d) (i) of sub section (1) of Section 67 of the Motor Vehicles Act, 1988 (Act 59 of 1988), and in supersession of earlier Notification issued in this regard if any, the Government of Gujarat having regard to the provisions of clause (a) to (d) of the said sub-section (1), hereby issues directions to the Regional Transport Authority of Baroda Region regarding fixing rates of fares for the stage carriages operated by the Charted Speed Private Limited,Sarkhej Bavla Highway,Sarkhej,Ahmedabad for plying in the areas as specified in the Schedule appended to this notification with effect from the date of publication of this notification in the *Official Gazette* namely:-

Fares inclusive of the amount of tax on passengers if any, levied or leviable under the Gujarat Motor Vehicles (Taxation of Passengers) Act, 1958 (Guj.LXVII of 1958), for the time being inforce and freights for stage carriages plying in the areas and on the routs respectively specified in column 1& 2 of the schedule appended hereto shall be subject to such maximum rates of fare as specified against them in column 3 & 4 respectively of the said schedule:

Provided that, in the case of any journey is shall be adjusted as to exclude there from the amount of such tax.

Provided further that the stage carriage operator shall not commit any breach of the stage carriage permit as per the Act and Rules made there under as amended from time to time. In case of such breach, the stage carriage permit sanctioned shall be liable to be cancelled forthwith.

SCHEDULE

Areas	Route	Maximum fare inclusive of passenger Tax	Freight
1	2	3	
Municipal or Cantonment areas and other adjacent areas having approved routes where stage carriages (city passengers bus services)are operated by Charted Speed Private Limited on behalf of Bharuch Nagar Palika.	All routes, such routes serving the areas adjacent to Bharuch as have been approved under the provision to section 3 of the Gujarat Motor Vehicles (Taxation of Passengers) Act, 1958.	(i) Rs. 3.00 (three rupees only) per passenger for the first stage or part thereof. (ii) Increase of Rs. 1.00 (One rupee only) per passenger beyond first stage up to three stages. (iii) Increase of Rs. 1.00(One Rupee only) for subsequent each three stages or part beyond third stages.	Rs. 3.00 (three rupees only) per passenger for the first stage or part thereof, Thereafter increase of Re. 1.00 (One rupee only) per article of luggage for each three stages. Provided that article not exceeding 25 kgs. in weight in aggregate shall not be charged.

Note: (1) For the purpose of this notification, the word "stage" means distance of two kilometers.

(2) In the notification the word "Passenger" shall have the same meaning as envisaged to it in the clause (h) of rule (2) and sub rule 119 of the Gujarat Motor Vehicles Rules, 1989.

By order and in the name of he Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Government

Government Central Press, Gandhinagar.

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Extra No. 117

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PART IV-A

Rules and Orders (Other than those published in Part I, I-A and I-L) made by the Government of Gujarat under the Central Acts.

PORTS AND TRANSPORT DEPARTMENT,

Notification,

Sachivalaya, Gandhinagar 16th December, 2011.

CONSTITUTION OF INDIA.

No.PT/2011/77/MVO/10/2011/1048/KH: - In exercise of the powers conferred by the proviso to article 309 of the Constitution of India and in supersession of all the rules made in this behalf, the Governor of Gujarat hereby makes the following rules to provide for regulating the method of examination for recruitment to the post of Inspector of Motor Vehicles, Class II, in the Gujarat State Transport Department, namely :-

1. ***Short title.***- These rules may be called the Inspector of Motor Vehicles, Class II, in the Gujarat State Transport Department, Competitive Examination Rules, 2011.

2. ***Definitions.*** - In these rules, unless the context otherwise requires, -

(a) "Appendix" means Appendix appended to these rules;

(b) "Commission" means the Gujarat Public Service Commission;

(c) "Examination" means the competitive examination for the recruitment to the post of Inspector of Motor Vehicles, Class II, in the Gujarat State Transport Department which includes written test and interview as referred to in rule 6; and

(d) "Government" means the Government of Gujarat.

3. ***Eligibility.***- (1) A candidate shall not be qualified for admission to the examination unless he is,-

(a) a citizen of India, or

(b) a subject of Nepal, or

(c) a subject of Bhutan, or

(d) a person of Indian origin who has migrated from Pakistan, Myanmar, Sri Lanka, East African countries of Kenya, Uganda, the United Republic of Tanzania, Zambia, Malawi, Zaire, Ethiopia and Vietnam, with the intention of permanently settling in India :

Provided that candidates belonging to categories (b), (c) and (d) shall be required to furnish a certificate of eligibility issued by the Government.

(2) A candidate who is required to produce a certificate under sub-rule (1), may be allowed to appear at the Examination and if selected he may also be provisionally appointed, subject to the production of the same.

4. ***Educational Qualifications and Age limit.-*** (1) A candidate possessing the requisite qualifications for the appointment to the post of Inspector of Motor Vehicles, Class II, in the Gujarat State Transport Department under the relevant recruitment rules shall be eligible for admission to the Examination.

(2) A candidate shall have attained the age of 21 years and shall not have attained the age of 28 years on the date specified by the Commission in the advertisement.

5. ***Holding of Examination.-*** (1) The Commission shall, on receiving the requisition from the Government, by advertisement published in the news paper widely circulated in the State call for the application in the prescribed form from the candidate possessing the required qualifications for the post specified in rule 1.

(2) The Commission shall decide the manner in which it shall conduct the Examination.

(3) The date, time and the places for holding the Examination shall be decided by the Commission.

(4) The candidate shall be required to attend written test and interview at his own expenses.

(5) The Commission shall clarify in the advertisement for the option to be given by the candidate for Paper I of the written test as specified in the Appendix.

6. ***Mode of Examination.-*** (1) The Commission shall after receiving the application from the candidates, verify the applications in accordance with these rules and call the eligible candidates to appear at the Examination which shall be held in two successive stages as specified in Appendix, in the following manner, namely: -

(i) written test; and

(ii) interview.

(2) The successful candidates in the written test shall be called for interview:

(3) The number of candidates called for interview shall ordinarily be three times the number of vacancies requisitioned.

(4) The candidate who fails to remain present at the interview on the specified date and time shall not be eligible for selection.

(5) The Commission shall declare the names of successful candidates, after completion of interview, equal to the number of vacancies requisitioned.

7. ***Syllabus and Medium of Examination.-*** (1) The syllabus for each of me papers shall be such as may be prescribed by the Commission and shall be supplied to the candidate along with the application form.

(2) The medium of written test shall be English except for Part B of Paper II of the written test.

8. ***Application to appear in examination.-*** (1) A candidate who desires to appear at the Examination shall submit an application in such form, within such time limit as may be prescribed by the Commission alongwith such fees as may be fixed by the Government.

(2) The fees shall be paid in such manner as the Government may direct. The fees once paid shall not be refunded or held over for the subsequent examination.

(3) The request of a candidate for withdrawal of application form and refund of fees shall not be entertained in any circumstances.

9. ***Disqualification for appointment on the ground of plural marriage.*** - (1) No person, who-

(a) has entered into or contracted a marriage with a person having spouse living; or

(b) having a spouse living, has entered into or contracted a marriage with any person;

shall be eligible for appointment to the said post:

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Provided that the Government may if satisfied that such marriage is permissible under the personal law applicable to such person and the other party to the marriage and that there are other grounds for so doing, exempt any person from the operation of this rule.

(2) The candidate shall declare in the application form whether he or she, as the case may be, is married and, in the case of male candidate he has more than one wife living and in the case of a female candidate whether she has married to man who has already another wife living.

10. ***Qualifying standard of marks.-*** (1) The Commission shall fix the qualifying standard of written test of all candidates:

Provided that the Commission may relax the qualifying standard of marks to make up the deficiency in the reserved posts.

(2) The candidate who has obtained minimum qualifying standard as may be fixed by the Commission for written test, shall be allowed to appear at the interview.

11. ***Appearance at the examination.-*** (1) No candidate shall be allowed to appear at the Examination unless the Commission is satisfied that-

(i) the candidate possesses the requisite qualifications under the recruitment rules of the post;

(ii) he has paid the requisite fees along with the application;

(iii) he possesses the requisite physique and age as prescribed under the recruitment rules of the post.

(2) The decision of the Commission as to the eligibility of a candidate for admission to the Examination shall be final. The candidate who does not qualify shall not be permitted to appear at the Examination.

12. ***Duty of candidate.*** - The candidate shall be required to answer all the question papers in his own handwriting.

13. ***Prohibition to use certain devices in the examination Hall-*** A candidate shall not be allowed to carry with him a cellular phone, calculator, pager, or any other electronic communication device.

14. ***Preparation of Select List and waiting List.*** - (1) The Commission shall cause to prepare the select list of the successful candidates in order of merit on the basis of aggregate marks finally awarded to each candidate in the Examination and in that order, the Commission shall forward the same with its recommendation to the Government.

(2) The Commission shall also recommend the names of successful candidates belonging to the Scheduled Castes, Scheduled Tribes, Socially and Educationally Backward Classes including Nomadic Tribes and Denotified Tribes and Women to the extent of the number of vacancies reserved for such categories.

(3) The result of the successful candidates shall be declared by the Commission and it shall be arranged in order of merit specifying their names, seat numbers and total marks obtained by the candidate.

(4) The Commission shall display on the notice board of the Commission, the names of the unsuccessful candidates specifying their seat number and the total marks obtained by them.

(5) The Commission shall submit a copy of the result to the Government and the Government shall publish the same in the *Official Gazette.*

(6) The Commission shall communicate the result to the successful candidates individually in the manner as may be decided by it.

(7) The Commission shall prepare the waiting list of qualified candidates which shall contain about 50 per cent, of total number of vacancies advertised for. The waiting list shall remain in force as per the instructions issued by the Government in that behalf.

15. ***No right to appointment*** - The successful candidates shall ordinarily be considered for appointment to the post in order of merit determined by the Commission up to the number of posts to be filled in. The mere success in the Examination shall not itself confer any right to appointment and it shall be open to the appointing authority to drop a candidate, if, after such inquiry, it is satisfied that the candidate is not suitable for public service.

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16. ***Medical Examination.***- The candidates qualified for appointment shall be required to pass the medical examination in accordance with the rules made by the Government in that behalf.

17. ***Disciplinary actions.*** - A candidate who is of has been declared by the Commission to be guilty of-

(i) obtaining support for his candidature by any means, or

(ii) impersonating, or

(iii) procuring impersonation by any person, or

(iv) submitting fabricated documents or documents which have been tampered with, or

(v) making statement which are incorrect or false or suppressing material information, or

(vi) resorting to any other irregular or improper means in connection with his candidature for the Examination, or

(vii) using unfair means during the Examination, or

(viii) writing irrelevant matter, including absurd language or pornographic matter, in the scripts, or

(ix) misbehaving in any other manner in the Examination hall, or

(x) harassing or doing bodily harm to the staff employed by the Commission for the conduct of the Examination, or

(xi) attempting to commit or, as the case may be, abetting the commission of all or any of the acts specified in the foregoing clauses, or

(xii) violating any of the conditions for admission to appear in the Examination as prescribed and specified in the admission certificate, may, in addition to rendering himself liable to criminal prosecution, be liable —

(a) to be disqualified by the Commission from the Examination for which he is a candidate, or

(b) to be debarred either permanently or for a specified period - -

(i) by the Commission, from appearing in any examination or from any interview for direct selection to be held by it, or

(ii) by the State Government, from any employment under it:

Provided that no penalty under clause (a) or (b) shall be imposed except after giving the candidate an opportunity of being heard, or

(c) to disciplinary action under the relevant rules, if he is in Government service.

18. ***Mark- sheet and rechecking of Marks.*** - (1) A candidate who desires to have the mark-sheet of the Examination shall apply to the Commission alongwith such fees as may be fixed by the Commission within a period of thirty days from the date of declaration of the final result.

(2) A candidate who desires to have his marks of examination rechecked may apply to the Commission alongwith such fees as may be fixed by the Commission within a period of fifteen days from the date of declaration of result of the Examination or from the date of the receipt of the Mark-sheet, whichever is later.

19. ***Conduct and regulation of Examination.***- The Commission shall regulate all matters relating to appointment of examiners and conduct of examination in accordance with the procedure adopted by it and in conformity with the Government's order in that behalf.

20. ***Training and examination:-*** The selected .candidate shall be required to undergo pre-service training and pass the post-training examination and the departmental examination, if any, in accordance with the rules as prescribed by the Government in that behalf.

APPENDIX

(See rule 6)

(A) Written Test:-

(1) The written test shall consist of the following :

Paper		Subject	Marks	Duration
Paper I		Any one subject to be selected from the list of optional subjects set out in para (2) below.	200	02 hours
Paper II	Part A	English	50	01 hour
	Part B	Gujarati	50	

(2) List of optional subject for Written Test Paper 1.

(1) Mechanical Engineering;

(2) Automobile Engineering.

Note:

(i) The paper I and II shall be objective type.

(ii) The standard of paper I shall be equivalent to the degree Examination of Mechanical or Automobile Engineering or an equivalent Examination.

(iii) The Commission shall clarify in the advertisement for the option to be given by the candidate for Paper I of the written test and the candidate shall have to opt for any one subject as specified in the list above, in his application form.

(iv) The standard of Part A of paper II shall be equivalent to the English subject (lower level) of twelfth standard of Gujarat Secondary and Higher Secondary Education Board.

(v) The standard of Part B of paper II shall be equivalent to the Gujarati subject (higher level) of twelfth standard of Gujarat Secondary and Higher Secondary Education Board.

(vi) The syllabus for each of the paper shall be such as may be prescribed by the Commission.

(B) Interview : 25 Marks

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,

Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS & TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 19th December, 2011.

MOTOR VEHICLE ACT, 1988 :

No. PT/2011/78/MVD/102010/2672/KH.— The following draft of a rules which is proposed to be issued under clause (xiv) of sub-section (2) of section 96 read with clause (a) of sub-section (2) of section 111 of the Motor Vehicles Act, 1988 (LIX of 1988), is published as required by sub-section (1) of section 212 of the said Act, for information of all persons likely to be affected thereby and notice is hereby, given that the said draft of rules will be taken into consideration by the Government of Gujarat on or after the expiry of thirty days from the date of its publication in the *Official Gazette.*

2. Any objection or suggestion which may be received by the Additional Chief Secretary to the Government of Gujarat, Ports and Transport Department, IInd floor, Block No.2, Sachivalaya, Gandhinagar from any person with respect to the said draft on or before the expiry of the aforesaid period will be considered by the Government.

DRAFT NOTIFICATION

MOTOR VEHICLE ACT, 1988 :

No. PT/2011/78/MVD/102010/2672/KH.— In exercise of the powers conferred by clause (xiv) of sub-section (2) of section 96 read with clause (a) of sub section-2 of section 111 of the Motor Vehicles Act, 1988 (LIX of 1988), the Government of Gujarat hereby makes the following rules further to amend the Gujarat Motor Vehicles Rules, 1989, namely:

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(1) These rules may be called the Gujarat Motor Vehicles (2nd Amendment) Rules ,

(2) In the Gujarat Motor Vehicles Rules, 1989 (hereinafter referred to as "the said rules"), in rule 2, for clause (la), the following shall be substituted, namely:-

"Sleeper bus" means a public service vehicle constructed or adapted to carry more than six passengers excluding the driver with a facility of comfortable sleep on berth".

(3) In the said rules, in rule 152A for the words "sleeper designated omnibus" the words "sleeper bus" shall be substituted.

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 119

REGISTERED NO. L 2/RNP/G/GNR-84
વાર્ષિક લવાજમનો દર ૩૦૦૦/-

सत्यमेव जयते

The Gujarat Government Gazette

EXTRAORDINARY

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Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS AND TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 20th December, 2011

Motor Vehicle Act, 1988.

No : PT/2011/79/MVD/102011/412/KH :— In exercise of the powers conferred by section 110(3)(b) of the Motor Vehicles Act, 1988 read with overall dimensions of Motor Vehicles (prescription of condition for exemption) Rules, 1991, the Government of Gujarat hereby exempt the class of Omni buses, constructed or adapted to carry more than six passengers excluding driver with a facility of comfortable sleep on berth or seat and sleep both for hire or reward from rule 93 (1) and 93 (6) of Central Motor Vehicles Rules, 1989 subject to such conditions as may be prescribed by the Central Government and strict compliance of following condition, namely;-

(1) The dimension mentioned in column 1, shall not exceeds measures mention in column 3, as under :

Dimension	Premissible	Additional Measures
1	2	3
Width	2.6 M	0.15 M
Over hang	Not more than 60% of wheel base	0.30 M

(2) The vehicles shall equip with necessary warning signals such as red flag in the day time, red light and reflectors in the night so as to indicate the extreme positions of the vehicle Clearly.

(3) The vehicle shall move without any hindrance to the normal flow of traffic.

(4) Where any damage is caused to the roads and road structures directly or indirectly due to the movement of such vehicles, the operator of the vehicle of the transporter shall be liable to pay such amount to the State Government as may be assessed by the authorities in this behalf.

(5) The State Government shall not be liable for any damage that may be caused to such vehicles of their contacts through their transits.

(6) Any grant of exemption under these rules shall be without prejudice to the right of the authorities specified in this behalf by the State Government to regulate or stop the movement of such vehicles having regard to the safety or roads, bridge, structures and other road users.

(7) The State Government may, in consultation with the operator of the vehicle of the owner, conduct route survey to assess the fitness of the roads for movement of such vehicles, feasibility of negotiating the curves more particularly in built-up areas, sufficiency or road width, adequacy of vertical clearance and deficiencies indentified in the assessment shall be rectified by the operator or owners of the vehicles.

(8) Exemption granted under these rules shall be applicable only for operating such vehicles on roads lying within the jurisdiction of the Public Works Department of the respective State Department and operators of the vehicles of their owners thereof shall make their own arrangements to obtain the approval of the other Departments of local body authorities for playing on the roads lying within their jurisdiction, if require.

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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Extra No. 120

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LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 20th December, 2011.

COMMISSIONS OF INQUIRY ACT, 1952.

No. : GK/31/2011/COI/102002/797/A.—WHEREAS the Government has, under Government Notification, Legal Department No. GK/07/2002/COI/102002/797-D, dated the 6th March, 2002, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the incident of setting on fire some coaches of the Sabarmati Express train near Godhra Railway Station on 27th February, 2002 and subsequent incidents of violence in the State;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 5th June, 2002 as provided in the aforesaid Notification of 06-03-2002 and thereafter within the time limit extended till 31st December, 2011 as provided in the different subsequent notifications;

AND WHEREAS, the said Commission has not been able to complete the inquiry and submit its report into the said matter to the State Government;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 31st March, 2012;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No. GK/07/2002/COI/102002/797-D, dated the 6th March, 2002, as follows, namely:-

In the said notification, in paragraph 3, for the words, figures and letters "on or before the 31st December, 2011**,"** the words, figures and letters "on or before the 31st March, 2012," shall be substituted.

By order and in the name of the Governor of Gujarat,

N. N. NAYAK,
Joint Secretary to Government.

Government Central Press, Gandhinagar.

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LEGAL DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 22nd December, 2011.

COMMISSIONS OF INQUIRY ACT, 1952.

No. : GK/32/2011/COI/102008/84/A.—WHEREAS the Government has, under Government Notification, Legal Department No. GK/32/2008/COI/102008/178/A, dated the 21st July, 2008, appointed a Commission of Inquiry under section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952) to inquire into the matters mentioned in paragraph 2 of the said notification arising out of the death of two school boys in the Gurukul of Sant Shri Asharamji Ashram, Motera;

AND WHEREAS, the Commission was required to complete the inquiry and submit its report on or before the 20th October, 2008 as provided in the aforesaid Notification of 21st April, 2008 and thereafter within the time limit extended till 31st December, 2011 as provided in the subsequent notifications;

AND WHEREAS, the said Commission is not likely to complete the inquiry and submit its report into the said matter to the State Government till 31st March, 2011;

AND WHEREAS, the Government of Gujarat is of the opinion that the Commission should complete the inquiry and submit its report to the State Government on or before the 31st March, 2012;

NOW, THEREFORE, in exercise of the powers conferred by section 3 of the Commissions of Inquiry Act, 1952 (60 of 1952), the Government of Gujarat hereby amends the Government Notification, Legal Department No. GK/32/2008/COI/102008/178/A, dated the 21st July, 2008, as follows, namely:-

In the said notification, in paragraph 4, for the words, figures and letters "on or before the 31st December, 2011**,"** the words, figures and letters "on or before the 31st March, 2012," shall be substituted.

By order and in the name of the Governor of Gujarat,

N. N. NAYAK,
Joint Secretary to Government.

Government Central Press, Gandhinagar.

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વન અને પર્યાવરણ વિભાગ

જાહેરનામું

સચિવાલય, ગાંધીનગર, ૧૫મી ડિસેમ્બર, ૨૦૧૧.

વન્યપ્રાણી (સંરક્ષણ) અધિનિયમ-૧૯૭૨ :

ક્રમાંક : ગવન-૨૦૧૧-(૨૪)/વપસ-૧૦૧૧-એસ.એફ.-૮૬/ડબલ્યુ.-- વન્યપ્રાણી (સંરક્ષણ) અધિનિયમ-૧૯૭૨ (સુધારેલ-૨૦૦૨) ની કલમ-૪, પેટા કલમ ૧ (બીબી) હેઠળ મળેલ સત્તાની રૂએ રાજ્ય સરકાર આ સાથે નીચે દર્શાવેલ જિલ્લાઓના અનુસૂચિમાં બતાવેલ ૨૪૭- ગામોના સરપંચશ્રીઓને, જે તે ગામ માટે '' માનદ વન્યપ્રાણી સંરક્ષક'' (ઓનરરી વાઈલ્ડ લાઈફ વોર્ડન) તરીકે તા.૩૧-૩-૨૦૧૩ અથવા સરકારશ્રી ઈચ્છે તે બે પૈકી જે વહેલુ હોય તેટલા સમય માટે આથી નિયુક્ત કરે છે.

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ગુજરાતના રાજ્યપાલશ્રીના હુકમથી અને તેમના નામે,

જે. એન. પટેલ,

સરકારના ઉપસચિવ.

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વન અને પર્યાવરણ વિભાગ, સચિવાલય, ગાંધીનગરના તા.૧૫-૧૨-૨૦૧૧ના જાહેરનામા ક્રમાંકઃ- ગવન-૨૦૧૧ (૨૪)/વપસ-૧૦૧૧-એસ.એફ.-૮૬/ડબલ્યુ (૨૪૭) ની અનુસૂચિ

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જે.એન. પટેલ,
સરકારના ઉપસચિવ.

સરકારી મધ્યસ્થ મુદ્રણાલય, ગાંધીનગર.

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Extra No. 123

REGISTERED No.L 2/RNP/G/GNR-84
વાર્ષિક લવાજમનો દર રૂ.૩૦૦૦/-

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PART IV-A

Rule and Orders (Other than those published in Parts I, I-A, and I-L) made by the Government of Gujarat under the Central Acts

PORTS & TRANSPORT DEPARTMENT

Notification

Sachivalaya, Gandhinagar, 23rd December, 2011.

MOTOR VEHICLE ACT, 1988 :

No. PT/2011/80/MTA/182011/2706/Kh :- In exercise of the powers conferred by clause (d)(i) of sub section (1) of section 67 of the Motor Vehicles Act, 1988 (Act No. 59 of 1988) and in supersession of Government Notification Ports and Transport Department No. PT/2007/57/MTA/182005/5778/KH dated 1st October, 2007, the Government of Gujarat having regard to the provisions of clause (a) to (d) of the said sub section (1), hereby issues directions to the State Transport Authority and the Regional Transport Authority of Rajkot Region regarding fixing rates of fares for the stage carriages operated by the Vitcos Transport Corporation, Bhavanagar on behalf of Rajkot Municipal Corporation plying in the areas as specified in the Schedule to this notification with effect from date of publication of this notification in the ***Official Gazette*** namely :-

Fares (inclusive of the amount of tax on passengers, if any, levied or leviable under the Gujarat Motor Vehicles (Taxation of Passengers) Act, 1958 (Guj. LXVII of 1958), for the time being in force and freights for stage carriages plying in the areas and on the routes respectively specified in column 1 & 2 of the schedule appended hereto shall be subject to such maximum rate of fare and freight as specified against them in column 3 & 4 respectively of the said schedule :

Provided that in the case of any journey undertaken by a student, if no such tax is leviable, the fares for such journey shall be so adjusted as to exclude there from the amount of such tax.

Provided further that the stage carriage operator shall not commit any breach of the stage carriage permit as per the Act and the Rules made thereunder as amended from time to time. In case of such a breach, the stage carriage permit sanctioned shall be liable to be cancelled forthwith.

SCHEDULE

Areas	Route	Maximum fare inclusive of passenger Tax	Freight
1	2	3	4
Municipal or Nagarpalika or cantonment areas which shall not be beyond maximum (10) ten Kms.limit having approved routes	All routes, such routes serving the areas adjacent to Rajkot Municipal Corporation approved under the provisio to section 3 of the Gujarat Motor Vehicles (Taxation of Passengers) Act, 1958	(i) Rs.4.00 (Four only) per passenger for the first stage or part thereof. (ii) Thereafter increase or Rs. 1.00 (One rupee only) more per passenger beyond first stage up to three stages. (iii) Increase of Rs. 1.00 (One rupee only) for subsequent each three stages or part thereof beyond third stage. (iv) For express bus & special buses to be provided on occasions like mela, religious gatherings etc. Rs. 3.00 up to 4 kms. Thereafter Rs. 4.00 shall be charged extra.	(i) Rs.3.00 (Three only) per article of luggage for first two stages or part thereof.) (ii) Thereafter increase of Rs. 4.00 (rupees four only) per article of luggage for each three stages..

Note :-(i) The above fare shall be subject to the revision on the recommendation of the Committee constituted by the State Government to assist the State Government for fixing the fare of stage carriages plying in the city areas.

(ii) For this Notification the word "stage" means distance of two kilometers.

(iii) The word "passenger" shall have the same meaning as assigned to it in the clause (h) of rule 2 and sub rule (i) of Rule 119 of the Gujarat Motor Vehicle Rules, 1989.

(iv) Permissible article of luggage not exceeding 25 kgs. in weight in aggregate shall not be charged.

By order and in the name of the Governor of Gujarat,

A. M. TRIVEDI,
Deputy Secretary to Government.

Government Central Press, Gandhinagar.

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